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Dirk Kempthome, Governor Toni Hardesty, Director

June 28, 2005

#### Certified Mail No. 7000 1670 0013 8128 2978

Elizabeth D. Sellers, Manager DOE-Idaho Operations 1955 Fremont Avenue Idaho Falls, Idaho 83401

RE:

Facility ID Nos. 023-00001, 011-00022, Idaho National Laboratory Research Center, Idaho Falls,

Final Tier I Operating Permit

Dear Ms. Sellers:

The Idaho Department of Environmental Quality (DEQ) is issuing Tier I Operating Permit No. T1-030520 for the Idaho National Laboratory Research Center in accordance with IDAPA 58.01.01.300 through 386, Rules for the Control of Air Pollution in Idaho (Rules).

The enclosed permit is effective immediately, summarizes the applicable requirements for your facility, and requires an annual compliance certification for all emissions units.

The enclosed operating permit is based on the information contained in your permit application, received On July 31, 1995 and April 6, 2001. Modifications to and/or renewal of this operating permit shall be requested in a timely manner in accordance with the *Rules*.

A representative of the Idaho Falls Regional Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. DEQ recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Dan Pitman, Permit Coordinator at (208) 373-0502 to address any questions or concerns you may have with the enclosed permit.

Sincerely.

Martin Bauer, Administrator

Air Quality Division

MB/MS/DP/KH/CZ/sd

Permit No. T1-030520

**Enclosure** 

#### G:\Air Quality\Stationary Source\SS Ltd\T1\INEEL\Final\T1 Final PL.doc

bc: Rensay Owen, Idaho Falls Regional Office

Ken Hanna, Permit Writer Carole Zundel, Permit Writer Dan Pitman, Permit Coordinator

Marilyn Seymore/Pat Rayne, Air Quality Division

Laurie Kral, EPA Region 10 Joan Lechtenberg, Public Comment

Source File Permit Binder Phyllis Heitman (Ltr Only) Reading File (Ltr Only)



# Air Quality TIER I OPERATING PERMIT

State of Idaho

**Department of Environmental Quality** 

FACILITY ID Nos . 0

**PERMIT No.:** T1-030520

**FACILITY ID Nos.:** 023-00001, 011-00022

AQCR: 61

CLASS:

Α

SIC: 9511 and 8733

ZONE:

12

#### 1. PERMITTEE

U.S. Department of Energy, Idaho Operations Office

#### 2. PROJECT

Idaho National Laboratory Research Center, Tier I Operating Permit

<b>1</b>				
3. MAILING ADDRESS	CITY	STATE	ZIP	
1955 Fremont Avenue	Idaho Falls	ID	83401	
4. FACILITY CONTACT	TITLE	TELEPHO	NE	
Teresa Perkins	Director, Environmental Technical Support Division	(208) 526-1	1483	
5. RESPONSIBLE OFFICIAI	_/TITLE	TELEPHONE		
Elizabeth D. Sellers, Manager, DOE-Idaho		(208) 526-5	5665	
John Grossenbacher, Director, Idaho National Laboratory		(208) 526-9		
Brent Rankin, ESH&Q Vice President, CFA,TRA, INTEC, TAN,		(208) 526-7	7434	
PBF				
Frank Russo, President/Mana	ger, AMWTP	(208) 557-7014		
Stephen L.Dunn, Manager, U	SDOE, Naval Reactors	(208) 533-5317		
6. EXACT PLANT LOCATION	ON	COUNTY		
Scoville, Idaho. Hwy. 20/26 b	etween Arco and Idaho Falls, and	Bingham, E	Sonneville, Butte, Clark, and	
Hwy. 33 between Mud Lake a	and Arco	Jefferson		

#### 7.GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Multipurpose national laboratory

#### 8. PERMIT AUTHORITY

This Tier I operating permit is issued pursuant to Idaho Code §39-115 and the *Rules for the Control of Air Pollution in Idaho*, IDAPA 58.01.01.300 through 386. The permittee shall comply with the terms and conditions of this permit.

This permit incorporates all applicable terms and conditions of prior air quality permits issued by the Idaho Department of Environmental Quality (DEQ) for the permitted source, unless the permittee emits toxic pollutants subject to state-only requirements pursuant to IDAPA 58.01.01.210, and the permittee elects not to incorporate those terms and conditions into this operating permit.

The effective date of this permit is the date of signature by DEQ on the cover page.

NOT FOR REPRODUCTION

DATE ISSUED:

June 28, 2005

TONI HARDESTY, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE EXPIRES:

June 28, 2010

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# Acronyms, Units, and Chemical Nomenclature

AALC acceptable ambient level for a carcinogen

ACGIH American Council of Governmental Industrial Hygienists

AMWTF Advanced Mixed Waste Treatment Facility
AMWTP Advanced Mixed Waste Treatment Project
ANL-W Argonne National Laboratory – West
ANSI American National Standards Institute

AP-42 Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area

Sources

AQCR Air Quality Control Region

ASME American Society of Mechanical Engineers
ASTM American Society for Testing and Materials

ATR Advanced Test Reactor

BACT Best Available Control Technology

Btu British thermal unit

Btu/hr British thermal unit per hour

°C degree centigrade CAA Clean Air Act

CEMS continuous emission monitoring system

CFA Central Facilities Area

CFR Code of Federal Regulations

Ci curie

Ci/mo curie per month
Ci/yr curie per year
cm<sup>2</sup> square centimeter
CO carbon monoxide

CPP Chemical Processing Plant (now known as INTEC)

DEO Department of Environmental Quality

DOE Department of Energy

DOE-Idaho DOE Idaho Operations Office dpm disintegrations per minute dscf dry standard cubic feet ECF Expended Core Facility

EPA U.S. Environmental Protection Agency

ERM effluent radiation monitor et seq and the following one(s)

°F degree Fahrenheit

FCF Fuel Conditioning Facility
FGR flue gas recirculator

ft foot

gal/yr gallons per year gal/mo gallons per month

gal gallon

gr grain (1 lb = 7,000 grains)
HEPA high efficiency particulate air

hr hour

IAQB Idaho Air Quality Board

ICPP Idaho Chemical Processing Plant (now known as INTEC)

IDAPA Idaho Administrative Procedures Act

INEEL Idaho National Engineering and Environmental Laboratory

INTEC Idaho Nuclear Technology and Engineering Center

JP-4 Jet Propulsion 4
JP-8 Jet Propulsion 8

km kilometer kPa kilopascals

KOH potassium hydroxide

lb pound

lb/day pounds per day lb/hr pounds per hour m³ cubic meters

mg/m<sup>3</sup> milligrams per cubic meter
MMBtu million British thermal units

mrem millirem (one thousandth of a roentgen equivalent man)

mrem/yr millirems per year
MTR Materials Test Reactor

Na sodium

NaK sodium potassium NaOH sodium hydroxide

NESHAP National Emission Standards for Hazardous Air Pollutants

NO<sub>X</sub> oxides of nitrogen
NRF Naval Reactors Facility

NSPS New Source Performance Standards

OEL Occupational Exposure Limit
O&M operations and maintenance

OSHA Occupational Safety and Health Administration

PBF Power Burst Facility
PM particulate matter

PM<sub>10</sub> particulate matter with an aerodynamic diameter less than or equal to a nominal 10

micrometers (µm)

PTC permit to construct
RE Retrieval Enclosure

RWMC Radioactive Waste Management Complex

SIC Standard Industrial Classification

SIP State Implementation Plan

SMC Specific Manufacturing Capability

SPF Sodium Process Facility

SO<sub>2</sub> sulfur dioxide
TAN Test Area North
TAP toxic air pollutant
TLV Threshold Limit Value
TMI-2 Three Mile Island Unit 2

TRA Test Reactor Area

TSA Transuranic Storage Area

TSP Total Suspended Particulates

T/yr tons per year

USC United States Code URF Unit Risk Factors

VOC volatile organic compound

wk week

WROC Waste Reduction Operations Complex WWTF Warm Waste Treatment Facilities

 $\begin{array}{ll} yr & year \\ \% & percent \\ \mu Ci & microcurie \\ \mu g & microgram \end{array}$ 

μg/m<sup>3</sup> micrograms per cubic meter

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the permit.

## 1. TIER I OPERATING PERMIT SCOPE

# **Purpose**

- 1.1 This initial Tier I operating permit establishes facility-wide requirements in accordance with the Rules for the Control of Air Pollution in Idaho.
- 1.2 This Tier I permit incorporates the applicable terms and conditions of the PTC's listed below. These existing PTC's remain in effect.

## **Argonne National Laboratory-West**

• PTC No. 011-00022	issued August 26, 2000 for the Sodium Process Facility.
• PTC No. 011-00022	issued May 9, 2001 for the FCF.
• PTC No. 011-00022	issued February 20, 2003 for the Utility Spray Paint Booth.
• PTC No. P-020521	issued December 1, 2003. PTC, INEEL-wide NO <sub>x</sub> sources were permitted. Sources of NO <sub>x</sub> within ANL-W include four boilers.

## Central Facilities Area

•	PTC No. 023-00001	issued February 14, 1996 for the Cleaver Brooks boiler CB-101-50.
•	PTC No. P-020521	issued December 1, 2003, issued to permit INEEL-wide NO <sub>x</sub> sources. Sources of NO <sub>x</sub> within CFA include the following boilers: CFA-650 B-25, CFA-662 B-28 and B-35 (one stack); CFA-671 B-33 and B-34 (one stack); and CFA-688 B-101 and B-102 (one stack).

#### Idaho Nuclear Technology and Engineering Center

•	PTC No. 023-00001	issued April 5, 1996, reconfiguration of the fuel storage portion of the FAST facility
•	PTC No. 023-00001	issued December 17, 1997, New Waste Calcining Facility/Decontamination Area
•	PTC No. 023-00001	issued March 4, 1998, building the waste storage facility (CPP-1619)
•	PTC No. P- 020521	issued December 1, 2003, permit included requirements for the FAST facility, LET&D, ventilation air system, process off-gas system, and facility-wide NO <sub>x</sub> sources
•	PTC No. P-030505	issued January 21, 2004, four distillate oil-fired boilers (CPP-606)

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## Waste Reduction Operations Complex

• PTC No. P-020521

issued December 1, 2003, contains NO<sub>x</sub> emission limits for several

boilers at the INEEL. The WROC boiler in this permit is the

Cyclotherm boiler PBF-620 M-31

**Naval Reactors Facility** 

• PTC No. P-020521

issued December 1, 2003 (NRF Portion only)

**Test Area North** 

PTC No. 023-00001

issued May 14, 1998, for boilers at TAN 603

• PTC No. P-030501

issued May 20, 2004 for the SMC

**Test Reactor Area** 

PTC No. 023-00001

issued September 9, 2002, for the warm wastewater evaporation pond

PTC No. P-000534

issued May 18, 2004 issued for three electrical generators

## Radioactive Waste Management Complex

None- see AMWTP

#### Advanced Mixed Waste Treatment Project

PTC No. 023-00001

issued June 7, 2002 for the AMWTF

PTC No. 023-00001

issued January 27, 2003 for the TSA-RE

PTC No. P-030542

issued December 19, 2003 for the TSA-RE standby generator

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# 2. FACILITY-WIDE CONDITIONS

The following table contains a summary of requirements that apply generally to emissions units at the facility.

**Table 2.1 FACILITY-WIDE CONDITIONS SUMMARY** 

Permit Conditions	Parameter	Permit Limit/ Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
2.1	Fugitive Dust	Reasonable control	IDAPA 58.01.01.650-651	2.2, 2.3, 2.4, 2.22
2.5	Visible Emissions	20% opacity for no more than three minutes in any 60-minute period	IDAPA 58.01.01.625	2.5, 2.6, 2.22
2.7	Excess Emissions	Compliance with IDAPA 58.01.01.130-	IDAPA 58.01.01.130-136	2.7.1 - 2.7.5.2, 2.22
2.8	Open Burning	Compliance with IDAPA 58.01.01.600-616	IDAPA 58.01.01.600-616	2.8
2.9	Fuel-Burning Equipment	Compliance with IDAPA 58.01.01.675-681	IDAPA 58.01.01.675-681	2.9.1, 2.22
2.10	Sulfur Content	1.75% or less for residual fuel; 0.3% or less for No. 1 fuel; 0.5% or less for No. 2 fuel	IDAPA 58.01.01.727, .728	2.10.1, 2.22
2.11	Process Weight Rate	Compliance with IDAPA 58.01.01.700-710	IDAPA 58.01.01.701, et seq.	2.22
2.12	Performance Testing	Compliance with IDAPA 58.01.01.157	IDAPA 58.01.01.157	2.12, 2.22, 2.23
2.13, 2.13.1, 2.13.2	Boiler NSPS	Compliance with 40 CFR Part 60, Subpart Dc	40 CFR Part 60, Subpart Dc	2.13.3 - 2.13.7
2.14	Volatile Organic Liquid Storage Tanks	Compliance with 40 CFR Part 60, Subpart Kb	40 CFR Part 60, Subpart Kb	2.14
2.15	Emissions of Radionuclides	Compliance with 40 CFR Part 61, Subpart H	40 CFR Part 61, Subpart H	2.15.1 - 2.15.2
2.16	Emissions of Asbestos	Compliance with 40 CFR Part 61, Subpart M	40 CFR Part 61, Subpart M	2.16.2
2.17	Emissions of HAPs from Off-Site Waste & Recovery Operations	Compliance with 40 CFR Part 63, Subpart DD	40 CFR Part 63, Subpart DD	2.17.1 – 2.17.3
2.18	Emissions Standards for Wood Furniture Operations	Compliance with 40 CFR Part 63, Subpart JJ	40 CFR Part 63, Subpart JJ	2.18.2
2.19	Accidental Release Prevention	Compliance with 40 CFR Part 68, Subpart F	40 CFR Part 68, Subpart F	2.19
2.20	Motor Vehicle Air Conditioners	Compliance with 40 CFR Part 82, Subpart B	40 CFR Part 82, Subpart B	2.20
2.21	Recycling and Emissions Reductions	Compliance with 40 CFR Part 82, Subpart F	40 CFR Part 82, Subpart F	2.21

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## Fugitive Dust

All reasonable precautions shall be taken to prevent particulate matter from becoming airborne in accordance with the Rules for Control of Fugitive dust IDAPA 58.01.01.650-651.

[IDAPA 58.01.01.650, 651, 5/1/94]

The permittee shall monitor and maintain records of the frequency and the method(s) used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive dust emissions.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

2.3 The permittee shall maintain records of all fugitive dust complaints received by the facility. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall, at a minimum, include the date each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

2.4 The permittee shall conduct a quarterly facility-wide inspection of potential sources of fugitive dust emissions, during daylight hours and under normal operating conditions, to ensure that the methods used to reasonably control fugitive dust emissions are effective. If fugitive dust emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each quarterly fugitive dust emission inspection. The records shall, at a minimum, include the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive dust emissions were present (if observed), any corrective action taken in response to the fugitive dust emissions, and the date the corrective action was taken.

Notwithstanding IDAPA 58.01.01.157, no prior notification is required for inspections of potential source for fugitive dust emissions required by this section of the permit.

[IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00]

#### Visible Emissions

2.5 No person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas are the only reason(s) for the failure of the emissions to comply with the requirements of this section.

[IDAPA 58.01.01.625, 4/5/00]

2.6 The permittee shall conduct a quarterly facility-wide inspection of potential sources of visible emissions, during daylight hours and under normal operating conditions. The visible emissions inspection shall consist of a see/no see evaluation for each potential source of visible emissions. If any visible emissions are present from any point of emission, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be

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the permit.

recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in its annual compliance certification and in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each quarterly visible emission inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

Not withstanding IDAPA 58.01.01.157, no prior notification is required for see/no see evaluations or Method 9 opacity tests required by this section of the permit.

[IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00]

#### **Excess Emissions**

2.7 Unless specified elsewhere in this permit, the permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions. The provisions of IDAPA 130-136 shall govern in the event of conflicts between the subsections of Permit Condition 2.9 and the regulations of IDAPA 130-136.

[IDAPA 58.01.01.130-136, 4/5/00]

2.7.1 The person responsible for or in charge of a facility during an excess emissions event shall, with all practicable speed, initiate and complete appropriate and reasonable action to correct the conditions causing such excess emissions event; to reduce the frequency of occurrence of such events; to minimize the amount by which the emission standard is exceeded; and shall, as provided below or upon request of DEQ, submit a full report of such occurrence, including a statement of all known causes, and of the scheduling and nature of the actions to be taken.

[IDAPA 58.01.01.132, 4/5/00]

2.7.2 In all cases where startup, shutdown, or scheduled maintenance of any equipment or emission unit is expected to result or results in an excess emissions event, the owner or operator of the facility or emissions unit generating the excess emissions shall demonstrate compliance with IDAPA 58.01.01.133.01(a) through (d), including, but not limited to, the following:

[IDAPA 58.01.01.133, 4/5/00]

2.7.2.1 No scheduled startup, shutdown, or maintenance resulting in excess emissions shall occur during any period in which an Atmospheric Stagnation Advisory and/or a Wood Stove Curtailment Advisory has been declared by DEQ, for the area where the source is located, within an area designated as a PM-10 nonattainment area.

[IDAPA 58.01.01.133.01.a, 3/20/97]

2.7.2.2 Notifying DEQ of scheduled excess emissions event as soon as reasonably possible, but no later than two hours prior to the start of the excess emission event, unless the owner or operator demonstrates to DEQ's satisfaction that a shorter advanced notice was necessary.

[IDAPA 58.01.01.133.01.b, 4/5/00]

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2.7.2.3 The owner or operator of a source of excess emissions shall report and record the information required pursuant to Permit Conditions 2.7.4 and 2.7.5 and IDAPA 58.01.01.135 and 136 for each excess emissions event due to startup, shutdown, or scheduled maintenance.

[IDAPA 58.01.01.133.01.c, 3/20/97]

2.7.3 In all cases where upset or breakdown of equipment or an emissions unit, or the initiation of safety measures, results or may result in an excess emissions event, the owner or operator of the facility or emissions unit generating the excess emissions shall demonstrate compliance with IDAPA 58.01.01.134.01(a) and (b) and the following:

[IDAPA 58.01.01.134, 4/5/00]

2.7.3.1 For all equipment or emissions units from which excess emissions result during upset or breakdown conditions, or for other situations that may necessitate the implementation of safety measures which cause excess emissions, the facility owner or operator shall comply with the following:

[IDAPA 58.01.01.134.02, 4/5/00]

The owner or operator shall immediately undertake all appropriate measures to reduce and, to the extent possible, eliminate excess emissions resulting from the event and to minimize the impact of such excess emissions on the ambient air quality and public health.

[IDAPA 58.01.01.134.02.a, 4/5/00]

The owner or operator shall notify DEQ of any upset, breakdown, or safety event that results in excess emissions. Such notification shall identify the time, specific location, equipment or emissions unit involved, and (to the extent known) the cause(s) of the occurrence. The notification shall be given as soon as reasonably possible, but no later than 24 hours after the event, unless the owner or operator demonstrates to DEQ's satisfaction that the longer reporting period was necessary.

[IDAPA 58.01.01.134.02.b, 4/5/00]

The owner or operator shall report and record the information required pursuant to Permit Conditions 2.7.4 and 2.7.5 and IDAPA 58.01.01.135 and 136 for each excess emissions event caused by an upset, breakdown, or safety measure.

[IDAPA 58.01.01.134.02.c, 3/20/97]

2.7.3.2 During any period of excess emissions caused by upset, breakdown, or operation under facility safety measures, DEQ may require the owner or operator to immediately reduce or cease operation of the equipment or emissions unit causing the excess emissions until such time as the condition causing the excess emissions has been corrected or brought under control. Such action by DEQ shall be taken upon consideration of the factors listed in IDAPA 58.01.01.134.03 and after consultation with the facility owner or operator.

[IDAPA 58.01.01.134.03, 4/5/00]

2.7.4 A written report for each excess emissions event shall be submitted to DEQ by the owner or operator no later than 15 days after the beginning of such an event. Each report shall contain the information specified in IDAPA 58.01.01.135.02.

[IDAPA 58.01.01.135.01, 3/20/97; IDAPA 58.01.01.135.02, 4/5/00]

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Location:	Scoville, Idaho	023-00001, 011-00022	Date Expires:	June 28, 2010	
The permit	tee is hereby allowed to operate the ear	uinment described herein si	uhiect to all terms	and conditions of	

The permittee is hereby allowed to operate the equipment described herein subject to all terms and conditions of the permit.

2.7.5 The owner or operator shall maintain excess emissions records at the facility for the most recent five-calendar-year period. The excess emissions records shall be made available to DEQ upon request. The excess emissions records shall include the information requested by IDAPA 58.01.01.136.03(a) and (b) as summarized in the following:

[IDAPA 58.01.01.136.01, 02, 3/20/97; IDAPA 58.01.01.136.03, 4/5/00]

2.7.5.1 An excess emissions record book for each emissions unit or piece of equipment containing copies of all reports that have been submitted to DEQ pursuant to IDAPA 58.01.01.135 for the particular emissions unit or equipment.

[IDAPA 58.01.01.136.03.a, 4/5/00]

2.7.5.2 Copies of all startup, shutdown, and scheduled maintenance procedures and upset, breakdown, and safety preventative maintenance plans that have been developed by the owner or operator in accordance with IDAPA 58.01.01.133 and 134, and facility records as necessary to demonstrate compliance with such procedures and plans.

[IDAPA 58.01.01.136.03.b, 3/20/97]

### **Open Burning**

The permittee shall comply with the requirements of IDAPA 58.01.01.600-616, Rules for Control of Open Burning.

[IDAPA 58.01.01.600-616, 5/1/94]

# Fuel-Burning Equipment

2.9 The permittee shall not discharge to the atmosphere from any fuel-burning equipment particulate matter in excess of 0.015 grains per dry standard cubic foot (gr/dscf) of effluent gas corrected to 3% oxygen by volume for gas, or 0.050 gr/dscf of effluent gas corrected to 3% oxygen by volume for liquid.

[IDAPA 58.01.01.676, 677, 5/1/94]

2.9.1 The permittee shall maintain records of the fuel-type procured for boiler use.

[IDAPA 58.01.01.322.07, 5/1/94]

#### Sulfur Content

- 2.10 No person shall sell, distribute, use, or make available for use any fuel oil containing more than the following percentages of sulfur:
  - Residual fuel oil 1.75% by weight
  - ASTM Grade 1 fuel oil 0.3% by weight
  - ASTM Grade 2 fuel oil 0.5% by weight

[IDAPA 58.01.01.727, 728, 5/1/94]

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2.10.1 The permittee shall maintain documentation of supplier verification of fuel oil on an as-received basis. [IDAPA 58.01.01.322.07, 5/1/94]

## Particulate Matter - Process Weight Limitations

- 2.11 No person shall emit to the atmosphere from any process or process equipment operating prior to October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in pounds per hour (lb/hr), and PW is the process weight in pounds per hour:
  - a. If PW is less than 17,000 lb/hr,

 $E = 0.045(PW)^{0.60}$ 

b. If PW is equal to or greater than 17,000 lb/hr,

 $E = 1.12(PW)^{0.27}$ 

No person shall emit to the atmosphere from any process or process equipment operating on or after October 1, 1979, particulate matter in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in pounds per hour, and PW is the process weight in pounds per hour.

a. If PW is less than 9,250 lb/hr,

 $E = 0.045(PW)^{0.60}$ 

b. If PW is equal to or greater than 9,250 lb/hr,

 $E = 1.10(PW)^{0.25}$ 

[IDAPA 58.01.01.700-703, 3/30/01]

### Performance Testing

2.12 If performance testing is required, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test or shorter time period as provided in a permit, order, consent decree, or by DEQ approval. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests such testing not be performed on weekends or state holidays.

All testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, prior to conducting any performance test, the permittee is encouraged to submit in writing to DEQ, at least 30 days in advance, the following for approval:

- The type of test method to be used
- Any extenuating or unusual circumstances regarding the proposed test
- The proposed schedule for conducting and reporting the test

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the permit.

Within 30 days following the date in which a compliance test required by this permit is concluded, the permittee shall submit to DEQ a report for the respective test. The compliance test report shall include all process operating data collected during the test period as well as the test results, raw test data, and associated documentation, including any approved test protocol.

The proposed test date(s), test date rescheduling notice(s), compliance test report, and all other correspondence shall be sent to the following:

Air Quality Permit Compliance Department of Environmental Quality Idaho Falls Regional Office 900 N. Skyline, Suite B Idaho Falls, ID 83402

Telephone: (208) 528-2650

Fax: (208) 528-2695

In accordance with 40 CFR 60.4, all 40 CFR 60 (NSPS) test information shall be submitted in duplicate to the Region 10 Office of the EPA to the attention of the Director of the Office of Air Quality at the following address. Copies of all test information required to be submitted to the EPA for applicable New Source Performance Standards (NSPS) requirements and National Emission Standards for Emissions of Radionuclides other than Radon from Department of Energy Facilities, shall also be submitted to DEQ.

EPA Region 10 Air Operating Permits, OAQ-107 1200 Sixth Ave. Seattle, WA 98101

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94]

# Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

- 2.13 The permittee shall operate all affected boilers at the facility in accordance with 40 CFR Part 60, Subpart Dc. For the purposes of this section of the operating permit and in accordance with 60.40c, an affected boiler is defined as any boiler with a maximum design heat capacity greater than or equal to 10 MMBtu/hr and less than or equal to 100 MMBtu/hr that was constructed, modified, or reconstructed after June 9, 1989.
- 2.13.1 The permittee shall comply with the sulfur dioxide standards in accordance with 40 CFR 60.42c(d). The sulfur limits apply at all times, including periods of startup, shutdown, and malfunction.
- 2.13.2 When combusting oil in an affected boiler that has a heat input capacity of greater than or equal to 30 MMBtu/hr, opacity shall not exceed 20% (six-minute average), except for one six-minute period per hour of not more than 27% opacity. The opacity standard applies at all times, except during periods of startup, shutdown, or malfunction.

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the permit.

- 2.13.3 The permittee shall maintain documentation supporting 40 CFR Part 60, Subpart Dc applicability determinations for each boiler at the facility. The documentation may include, but is not limited to, the following: date the boiler was constructed, date the boiler was modified or reconstructed as defined in 40 CFR 60.14 and 60.15, maximum design heat input capacity of the boiler, and/or fuel burned.
- 2.13.4 The permittee shall obtain certifications from the fuel supplier stating that oil supplied for the affected boilers complies with specifications of the distillate oil or residual oil definitions in 40 CFR 60.41c.

  The most recent five-year compilation of data shall be kept onsite and shall be made available to DEQ representatives upon request.
- 2.13.5 Compliance with particulate matter (PM) and opacity standards under 40 CFR 60.43c shall be determined in accordance with 40 CFR 60.45c and as required in 40 CFR 60.8, and IDAPA 58.01.01.157.
- 2.13.6 The permittee shall record and maintain records of the amounts of each fuel combusted in each affected boiler during each day. The most recent five-year compilation of data shall be kept onsite and shall be made available to DEQ representatives upon request.
- 2.13.7 For all affected boilers at the facility, the permittee shall comply with all applicable reporting and recordkeeping requirements in accordance with 40 CFR 60.48c.

[40 CFR 60, Subpart Dc]

# Volatile Organic Liquid Storage Vessels

- 2.14 In accordance with 40 CFR 60.110.b(a), this subpart applies to each storage vessel with a capacity greater than or equal to 75 m<sup>3</sup> that is used to store volatile organic liquids for which construction, reconstruction, or modification is commenced after July 23, 1984.
- 2.14.1 In accordance with 40 CFR 60.110.b(b), this subpart does not apply to storage vessels with a capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 3.5 kPa or with a capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 15.0 kPa.
- 2.14.2 In accordance with 40 CFR 60.110.b(d), this subpart does not apply to storage vessels meeting the definitions of §60.110.b(d)(1) thru §60.110.b(d)(8).
- 2.14.3 In accordance with 40 CFR 60.116.b(b), the owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

[40 CFR 60, Subpart Kb]

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# National Emission Standards for Emissions of Radionuclides other than Radon from Department of Energy Facilities

- 2.15 Emissions of radionuclides to the ambient air from Department of Energy facilities shall not exceed those amounts that would cause any member of the public to receive, in any year, an effective dose equivalent of 10 millirem per year (mrem/yr).
- 2.15.1 In accordance with 40 CFR 61.93, the permittee shall determine radionuclide emissions and calculate effective dose equivalent values to members of the public using EPA-approved methods.
- 2.15.2 The permittee shall submit annual reports and maintain records documenting radionuclide emissions and effective dose equivalent values in accordance with 40 CFR 61.94 and 61.95.

[40 CFR 61, Subpart H]

#### National Emission Standard for Asbestos

- 2.16 The permittee shall comply with the following:
- 2.16.1 Any renovation or demolition activity planned at the facility shall be conducted in accordance with 40 CFR 61.145. New materials to be used during any renovation at the facility shall comply with standards given in 40 CFR 61.146 for spray-on materials and 40 CFR 61.148 for insulating materials.
- 2.16.2 Waste disposal for demolition, renovation, and spraying operations shall be conducted in accordance with 40 CFR 61.150 in prevention of visible emissions to the outside air of any asbestos-containing material. Air cleaning during demolition and renovation activities shall be conducted in accordance with 40 CFR 61.152. Reporting shall occur in accordance with 40 CFR 61.153.
- 2.16.3 The permittee shall operate active waste disposal facilities for asbestos-containing material in accordance with 40 CFR 61.154.

[40 CFR 61, Subpart M]

# National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations

- In accordance with 40 CFR 63 Subpart DD, the owner or operator of affected sources subject to this subpart is exempted from the requirements of §63.682 through §63.699 when the total annual quantity of the HAP contained in the off-site material received at the plant is less than 1 megagram per year. The definition of off-site material is specified in §63.680(b). The owner or operator must meet the requirements contained in §63.680(d)(1) through §63.680(d)(3) to qualify for this exemption as follows:
- 2.17.1 In accordance with §63.680(d)(1), the owner or operator must prepare an initial determination of the total annual HAP quantity in the off-site material received at the plant site.

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The permittee is hereby allowed to operate the equipment described herein subject to all terms and conditions of the permit.

- 2.17.2 In accordance with §63.680(d)(2), the owner or operator must prepare a new determination whenever the extent of changes to the quantity or composition of the off-site material received at the plant site could cause the total annual HAP quantity to exceed the 1 megagram per year limit.
- 2.17.3 In accordance with §63.680(d)(3), the owner or operator must maintain documentation of the determination of the total HAP quantity in the off-site material received at the plant. This documentation must include the basis and data used for determining the HAP content of the off-site material.

[40 CFR 63, Subpart DD]

# National Emission Standards for Wood Furniture Manufacturing Operations

- 2.18 In accordance with 40 CFR 63 Subpart JJ, the owner or operator may be exempted from this subpart provided the following requirements are met:
- 2.18.1 In accordance with §63.801(a), the owner or operator meets the definition of a incidental wood manufacture which means a major source that is primarily engaged in the manufacture of products other than wood furniture or wood furniture components and that uses no more than 100 gallons per month of finishing material or adhesives in manufacture of wood furniture or wood furniture components.
- 2.18.2 In accordance with §63.800(a), the owner or operator shall maintain purchase or usage records to demonstrate that total monthly usage rates of finishing material or adhesives are less than 100 gallons per month. In accordance with §63.801(a), finishing materials are defined as materials which include, but are not limited to, coatings, stains, basecoats, washcoats, enamels, sealers, and topcoats.

[40 CFR 63, Subpart JJ]

# Regulated Substances for Accidental Release Prevention

- An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, shall comply with the requirements of the Chemical Accident Prevention Provisions 40 CFR 68 no later than the latest of the following dates:
- 2.19.1 Three years after the date on which a regulated substance present above a threshold quantity is first listed under 40 CFR 68.130.
- 2.19.2 The date on which a regulated substance is first present above a threshold quantity in a process.

  [40 CFR 68, Subpart F]

# Servicing of Motor Vehicle Air Conditioners

2.20 The permittee shall comply with applicable standards for motor vehicle air conditioner maintenance activities pursuant to 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

[40 CFR 82, Subpart B]

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## Recycling and Emissions Reductions

2.21 The permittee shall comply with applicable standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, Recycling and Emissions Reduction.

[40 CFR 82, Subpart F]

## Monitoring and Recordkeeping

2.22 The permittee shall maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of this operating permit. Records of monitoring information shall include, but not be limited to, the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

The permittee is not required to conduct the monitoring and associated recordkeeping for any emission unit if the emission unit did not operate at any time between required monitoring events, provided the following conditions are met:

- a) in the case of a permanent shut down of the emission unit:
  - i) the permittee makes a contemporaneous record in a log or file maintained on site of the date that the emission unit ceased operation.
- b) in the case of a temporary shut down of the emission unit:
  - i) the permittee makes a contemporaneous record in the log or file maintained on site of the date that the emission unit ceased operation and the reason why the emission unit did not operate.
  - ii) the permittee makes a contemporaneous record in a log or file maintained on site of the date that the emission unit resumed operation.

[IDAPA 58.01.01.322.07, 5/1/94]

# Reports and Certifications

2.23 Reports for any required monitoring shall be submitted at least every six months. Excess emissions reports and notifications shall be submitted in accordance with IDAPA 58.01.01.130-136. Reports, certifications, and notifications shall be submitted to:

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Air Quality Permit Compliance Department of Environmental Quality Idaho Falls Regional Office 900 N. Skyline, Suite B Idaho Falls, ID 83402

Telephone: (208) 528-2650

Fax: (208) 528-2695

The periodic compliance certification required by General Provision 21 shall also be submitted to:

EPA Region 10 Air Operating Permits, OAQ-107 1200 Sixth Ave. Seattle, WA 98101

[IDAPA 58.01.01.322.08, 11, 5/1/94]

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#### 3. ARGONNE NATIONAL LABORATORY - WEST

#### 3.1 Boilers

## **Summary Description**

Emissions of NO<sub>x</sub> emissions from several sources at the INEEL facility are regulated in PTC No.P-020521, which was issued to DOE on December 1, 2003. Included in this permit are four boilers located at Argonne National Laboratory - West (ANLW). All boilers were constructed prior to 1974. All boilers are pre-ignited with propane and operated on No. 2 fuel oil.

In addition to the facility-wide conditions listed in Section 2 of this permit, Table 3.1 contains additional requirements that apply to the ANL-West.

**Table 3.1 APPLICABLE REQUIREMENTS SUMMARY** 

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring, Recordkeeping, and Reporting Requirements
3.1.1	NO <sub>x</sub>	See Table 3.2	PTC No. P-020521	3.1.2, 3.1.3, 3.1.4
3.1.2	Boiler Fuel Requirements	Combust only ASTM grade	IDAPA 58.01.01.322.06, 07, 5/1/1994	3.1.3

## Permit Limits/Standard Summary

#### **Emissions Limits**

3.1.1 Oxides of nitrogen emissions from the boilers shall not exceed any corresponding emission rate limit listed in Table 3.2.

Table 3.2 OXIDES OF NITROGEN EMISSIONS FROM THE BOILERS

Source Description	NO <sub>x</sub> (lb/hr) <sup>1</sup>	$NO_x (T/yr)^2$
ANL Boiler No. 1 (Keeler boiler)	3.36	14.72
ANL Boiler No. 2 (Keeler boiler)	3.36	14.72
ANL Boiler No. 3 (Murray boiler, identified in P-020521 as Keeler boiler)	3.36	14.72
ANL Boiler No. 4 (Cleaver Brooks boiler)	3.74	14.72

average pounds-per-hour per month

[PTC No. P-020521, 12/1/03]

## **Operating Requirements**

3.1.2 The permittee shall not burn ASTM grade No. 5 and 6 in ANL Boiler No. 1, ANL Boiler No. 2, ANL Boiler No. 3, and ANL Boiler No. 4.

[IDAPA58.01.01.322.01, 5/1/94]

tons per consecutive 12-month period

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## Monitoring, Recordkeeping, and Reporting Requirements

3.1.3 The permittee shall monitor and record the monthly and consecutive 12-month period fuel consumption and type of fuel combusted by each boiler identified in Table 3.2. The most recent five-year compilation of records shall be kept onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

3.1.4 The permittee shall calculate and record the average pounds per hour per month NO<sub>x</sub> emissions and NO<sub>x</sub> emissions per consecutive 12-month period from each boiler listed in Table 3.2 using appropriate EPA AP-42 or manufacturer supplied emissions factors, or a DEQ approved alternative method. A compilation of the most recent five-years of records shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

## 3.2 Utility Spray Paint Booth

## **Summary Description**

The utility paint booth is a maintenance paint booth and is not used as part of any production line. Items to be painted will vary in both material type and configuration. No radionuclides are emitted.

Table 3.3 contains only a summary of the requirements that apply to the paint booth. Specific permit requirements are listed below Table 3.3.

Table 3.3 APPLICABLE REQUIREMENTS SUMMARY

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring, Recordkeeping, and Reporting Requirements
3.2.1	voc	VOC limited to 0.8 T/yr	PTC No. 011-00022	3.2.7
3.2.1	PM	PM limited to 0.2 T/yr	PTC No. 011-00022	3.2.7
3.2.2	Types of paints and solvents	As per permit application or comparable replacement	PTC No. 011-00022	3.2.7
3.2.3	O&M manual	Develop within 60 days of February 20, 2003	PTC No. 011-00022	3.2.3
3.2.4	Exhaust filters required	Spray booth shall not operate without exhaust filters	PTC No. 011-00022	3.2.4
3.2.5	Filter efficiency	Minimum 87% particulate control	PTC No. 011-00022	3.2.6

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the permit.

## Permit Limits/Standard Summary

#### **Emissions Limits**

3.2.1 The particulate matter (PM) and volatile organic compound (VOC) emissions from the utility paint spray booth stack shall not exceed any corresponding emissions rate limits listed in Table 3.4.

Table 3.4 Utility Paint Spray Booth Emissions<sup>b</sup> Limits

Source	PM	VOC
Description	T/yr <sup>a,c</sup>	T/yr <sup>a,c</sup>
Utility Paint Spray Booth	0.2	0.8

- a tons per consecutive 12-month period
- As determined by a pollutant-specific EPA reference method, DEQ-approved alternative, or as determined by the DEQ's emissions estimation methods used in this permit analysis.
- As determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emissions rate by the allowable hours per year that the process(es) may operate(s), or by actual annual production rates.

[PTC No. 011-00022, 2/20/03]

## **Operating Requirements**

3.2.2 Only those paints and solvents as submitted in the permit application, or comparable replacements, which comply with the emissions limits in Permit Condition 3.2.1 of this permit may be used in the utility paint spray booth unless prior DEQ approval is obtained.

[PTC No. 011-00022, 2/20/03]

3.2.3 Within 60 days of February 20, 2003, the permittee shall have developed an O&M manual for the exhaust filter. This manual shall contain, at a minimum, the filter replacement schedule. The manual shall remain on site and be made available to DEQ representatives upon request.

[PTC No. 011-00022, 2/20/03]

- 3.2.4 The utility paint spray booth shall not be operated unless all exhaust filters are in place and intact.

  [PTC No. 011-00022, 2/20/03]
- 3.2.5 Only filters which have a manufacturer guarantee to remove at least 87% of particulate shall be used in the cabinet type exhaust chamber.

[PTC No. 011-00022, 2/20/03]

## Monitoring, Recordkeeping, and Reporting Requirements

3.2.6 The permittee shall maintain documentation of the type and manufacturer's guarantee of particulate removal efficiency for all filters that are used in the exhaust chamber to demonstrate compliance with Permit Condition 3.2.5. The documentation shall remain on site and be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

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3.2.7 The permittee shall maintain records of the types, quantities, solvent content, and date of application for all paints and solvents used in the paint booth. The permittee shall calculate the total VOC emissions for the previous month assuming all solvents are emitted to the atmosphere. The most recent five years of records shall be maintained onsite and made available to DEQ representatives upon request.

[PTC No. 011-00022, 2/20/03]

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The permittee is hereby allowed to operate the equipment described herein subject to all terms and conditions of the permit.

## 4. CENTRAL FACILITIES AREA (CFA)

In addition to the Facility-wide conditions in Section 2 of this permit, Table 4.1 contains a summary of the additional requirements that apply to CFA.

Table 4.1 APPLICABLE REQUIREMENTS SUMMARY

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
Boiler CFA-6	609-005			
4.1.1	PM	Table 4.2 establishes hourly and annual PM emissions limits	PTC No. 023-00001	4.1.2 - 4.1.7
4.1.2	Fuel oil	Only burn No. 2 fuel oil, JP-4 fuel, or JP-8 fuel	PTC No. 023-00001	4.1.6
4.1.3	Fuel sulfur content	Not to exceed 0.5% by weight	PTC No. 023-00001	2.12.1, 4.1.5
4.1.4	Fuel oil consumption	Not to exceed 25,000 gallons per consecutive 12-month period	PTC No. 023-00001	4.1.6

#### 4.1 Boiler CFA-609-005

# **Summary Description**

The following is a narrative description of Boiler CFA-609-005 regulated in this Tier I operating permit. This description is for informational purposes only. Boiler CFA-609-005 has a rated capacity of 2.092 MMBtu/hr. There are no control devices for this emissions unit. The most recent permit (PTC No. 023-00001) for this boiler was issued to DOE on February 14, 1996, and in the PTC this boiler is referred to as Cleaver Brooks boiler CB-101-50.

# Permit Limits/Standard Summary

#### **Emissions Limits**

4.1.1 Particulate matter emissions from boiler CFA-609-005 shall not exceed any corresponding emission rate limit listed in Table 4.2.

Table 4.2 PM EMISSIONS FROM BOILER CFA-609-005

14014 112 1 111 211110010110 1 110111	DOILDLIL CLIL C.	,, ,,
Source Description	PM (lb/hr) <sup>1</sup>	PM (T/yr) <sup>2</sup>
Boiler No. CFA-609-005	0.03	0.025

Pounds per hour based on a monthly average

[PTC No. 023-00001, 2/14/96]

# Operating Requirements

4.1.2 The boiler shall burn No. 2 fuel oil, JP-4, or JP-8 fuel.

[PTC No. 023-00001, 2/14/96]

Tons per year based on any consecutive 12-month period

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4.1.3 The sulfur content of the fuel, shall not exceed 0.5% by weight as specified in IDAPA 58.01.01.728.02.

[PTC No. 023-00001, 2/14/96]

4.1.4 The total fuel consumption of the boiler shall not exceed 25,000 gallons per any consecutive 12-month period.

[PTC No. 023-00001, 2/14/96]

## Monitoring and Recordkeeping Requirements

- 4.1.5 The permittee shall follow the procedures specified in Permit Condition 2.10.1 to verify that the sulfur content of the No. 2 fuel oil, JP-4, and JP-8 fuels do not exceed 0.5% by weight.

  [PTC No. 023-00001, 2/14/96; IDAPA 58.01.01.322.06, 07, 5/1/94]
- 4.1.6 The permittee shall monitor and record the monthly and consecutive 12-month period fuel consumption by type of fuel combusted by Boiler CFA-609-005. A compilation of the most recent five years of records shall be maintained onsite and shall be made available to DEQ representatives upon request.

[PTC No. 023-00001, 2/14/96; IDAPA 58.01.01.322.06, 07, 5/1/94]

4.1.7 The permittee shall calculate and record the average pounds per hour per month PM emissions and PM emissions per consecutive 12-month period from Boiler CFA-609-005 using appropriate EPA AP-42 or manufacturer supplied emissions factors, or a DEQ approved alternative method. A compilation of the most recent five years of records shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

#### 4.2 Boilers

## Summary Description

The following is a narrative description of the  $NO_x$  sources regulated at CFA. This description is for informational purposes only. Emissions of  $NO_x$  from several sources at the DOE facility, including boilers at the CFA, are regulated in PTC No. P-020521 issued to DOE on December 1, 2003. There are no control devices associated with these boilers. Included in this permit are the following boilers located at CFA:

<u>Boilers</u>	<u>Formerly</u>
CFA-650-007	CFA-650 B-25
CFA-662-011	CFA-662 B-28
CFA-662-027	CFA-662 B-35
CFA-671-007	CFA-671 B-33
CFA-671-008	CFA-671 B-34
CFA-688-043	CFA-688 B-101
CFA-688-044	CFA-688 B-102

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## Permit Limits/Standard Summary

#### **Emissions Limits**

4.2.1 Oxides of nitrogen emissions from the boilers shall not exceed any corresponding emission rate limit listed in Table 4.3.

Table 4.3 OXIDES OF NITROGEN EMISSIONS FROM THE BOILERS

Source Description	NO <sub>x</sub> (lb/hr) <sup>1</sup>	NO <sub>x</sub> (T/yr) <sup>2</sup>
Boiler CFA-650-007	0.58	1.90
Combined emissions from CFA-662-011 and CFA-662-027 (one stack)	0.96	3.14
Combined emissions from CFA-671-007 and CFA-671-008 (one stack)	1.52	4.98
Combined emissions from CFA-688-043 and CFA-688-044 (one stack)	2.32	7.21

Pounds per hour based on a monthly average

[PTC No. P-020521, 12/1/03]

## Monitoring and Recordkeeping Requirements

4.2.2 The permittee shall monitor and record the monthly and consecutive 12-month period fuel consumption and type of fuel combusted by each boiler listed in Table 4.3. For boilers with a combined emission rate limit (CFA-662-011 and CFA-662-027; CFA-671-007 and CFA-671-008; CFA-688-043 and CFA-688-044), the combined fuel consumption may be monitored and recorded. A compilation of the most recent five years of records shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

4.2.3 The permittee shall calculate and record the average pounds per hour per month NO<sub>x</sub> emissions and NO<sub>x</sub> emissions per consecutive 12-month period from each boiler as listed in Table 4.3 using appropriate EPA AP-42 or manufacturer supplied emissions factors, or a DEQ approved alternative method. A compilation of the most recent five years of records shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

Tons per year based on any consecutive 12-month period

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## 5. IDAHO NUCLEAR TECHNOLOGY AND ENGINEERING CENTER (INTEC)

### 5.1 Building CPP-606 Distillate Oil-fired Boilers

## **Summary Description**

The following is a narrative description of the emissions sources in Building CPP-606 regulated in this Tier I operating permit. This description is for informational purposes only.

Building CPP-606 includes four boilers with a rated capacity of 36.4 MMBtu/hr each. A flue gas recirculator (FGR) on each boiler provides NO<sub>x</sub> emissions control.

In addition to the facility-wide permit conditions listed in Section 2 of this permit Table 5.1 contains a summary of additional requirements that apply to the boilers located at Building CPP-606.

Table 5.1 APPLICABLE REQUIREMENTS SUMMARY

Permit Conditions	Parameter	Permit Limits / Standard Summary	Applicable Requirements Reference	Monitoring, Recordkeeping, and Reporting Requirements
5.1.1	SO <sub>2</sub>	Not to exceed 895 lb/day; 163 tons per consecutive 12-month period	PTC No. 023-00001	5.1.9
5.1.1	NO <sub>x</sub>	Not to exceed 415 lb/day; 75.6 tons per consecutive 12-month period	PTC No. 023-00001	5.1.9
5.1.7	Fuel combustion limit	Not to exceed 20,736 gallons per day	PTC No. 023-00001	5.1,9
5.1.5	Fuel oil	Only combust distillate oil	PTC No. 023-00001	5.1.8
5.1.5	Fuel oil sulfur limit	Sulfur content not to exceed 0.3%	PTC No. 023-00001	5.1.8
2.5, 5.1.3	Visible emissions	20% opacity for no more than three minutes in any 60-minute period	PTC No. 023-00001, IDAPA 58.01.01.625	2.6, 2.22, 2.23
2.13.2, 5.1.4	Visible emissions	20% opacity six-minute average in any 60-minute period	PTC No. 023-00001, 40 CFR 60.43c	2.13.5
5.1.2	PM	0.050 gr/dscf	PTC No. 023-00001	5.1.8

# Permit Limits/Standard Summary

#### **Emissions Limits**

5.1.1 The SO<sub>2</sub>, NO<sub>x</sub>, and beryllium emissions from the CPP-606 boiler stacks combined shall not exceed any corresponding emission rate limits listed in Table 5.2.

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Table 5.2 CPP-606 BOILER EMISSIONS LIMITS\*

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Source	SC	)2	N	O,	Bery	llium	]
Description	lb/day	T/yr	lb/day	T/yr	lb/day	T/yr	1
CPP-606 boilers	895	163	415	75.6	1.05E-02	1.91E-03	1

<sup>\*</sup> The permittee shall not exceed the T/yr listed based on any consecutive 12-month period.

[PTC No. P-030505, 1/21/04]

5.1.2 In accordance with IDAPA 58.01.01676 (Rules for the Control of Air Pollution in Idaho), the permittee shall not discharge into the atmosphere from the Building CPP-606 boilers stacks any gases that contain particulate matter emissions in excess of 0.05 grains per dry standard cubic foot (gr/dscf) corrected to 3% oxygen.

[PTC No. P-030505, 1/21/04]

- 5.1.3 The permittee shall not discharge into the atmosphere from the Building CPP-606 boilers stacks or any other stack, vent, or functionally equivalent opening, emissions that exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period, as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

  [PTC No. P-030505, 1/21/04]
- 5.1.4 In accordance with 40 CFR 60.43c, the permittee shall not discharge into the atmosphere from the Building CPP-606 boilers stacks any gases that exhibit greater than 20% opacity (six-minute average), except for one six-minute period per hour of not more than 27% opacity. The opacity standard shall apply at all times except during periods of startup, shutdown, or malfunction. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625 and as specified in 40 CFR Part 60. [PTC No. P-030505, 1/21/04]

## **Operating Limits**

5.1.5 The permittee shall combust distillate oil only in the Building CPP-606 boilers. The distillate oil combustion in these boilers shall not contain greater than 0.3 weight percent sulfur.

[PTC No. P-030505, 1/21/04]

In accordance with 40 CFR 60.42c(d), as an alternative to operating continuous emission monitor, the permittee shall not combust distillate oil that contains greater than 0.5 weight percent sulfur in the Building CPP-606 boilers. In accordance with 40 CFR 60.41c, distillate oil means fuel oil that complies with the specification for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, "Standard Specification for Fuel Oils".

[PTC No. P-030505, 1/21/04]

5.1.7 The total amount of boiler fuel combusted for all Building CPP-606 boilers shall not exceed 20,736 gallons per day.

[PTC No. P-030505, 1/21/04]

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## Monitoring, Recordkeeping, and Reporting Requirements

5.1.8 To demonstrate compliance with Sections 5.1.5 and 5.1.6 of this permit, the fuel oil supplier shall certify all boiler fuel combusted in the Building CPP-606. In accordance with 40 CFR 60.48c(f), fuel oil supplier certification shall include the name of the fuel oil supplier, and a statement from the fuel oil supplier that the fuel oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c. The permittee shall also maintain documentation of the fuel sulfur content of oil used in the boilers. All records shall be maintained for a period of five years.

[PTC No. P-030505, 1/21/04 & IDAPA 58.01.01.322.06, 5/1/94]

5.1.9 In accordance with 40 CFR 60.48.c(g), the permittee shall monitor and record the amount of boiler fuel combusted in the Building CPP-606 boilers. The amount of boiler fuel combusted shall be recorded as gallons per day (gal/day), in a log, kept at the facility for the most recent five-year period. The log shall be available to DEQ representatives upon request.

[PTC No. P-030505, 1/21/04]

5.1.10 In accordance with 40 CFR 60.44c(h), the performance test to demonstrate compliance with Section 5.1.6 of this permit shall consist of certification from the fuel supplier. In accordance with 40 CFR 60.48c(f), fuel supplier certification shall include the following information for distillate oil: (1) the name of the oil supplier; and (2) a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c.

[PTC No. P-030505, 1/21/04]

- 5.1.11 In accordance with 40 CFR 60.48c(d), the permittee shall submit semi-annual reports to EPA Region 10 and to DEQ. In accordance with 40 CFR 60.48c(j), the reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to EPA Region X and to DEQ and shall be postmarked by the 30<sup>th</sup> day following the end of the reporting period. Each submitted semi-annual reports shall contain the information required by 40 CFR 60.48c(e), as applicable.

  [PTC No. P-030505, 1/21/04]
- 5.1.12 In accordance with 40 CFR 60.48c(i), the permittee shall maintain all records of the information required by 40 CFR 60.48c(e). The permittee shall maintain the records for a period of five years following the date of such record.

[PTC No. P-030505, 1/21/04]

# 5.2 Idaho Nuclear Technology and Engineering Center (INTEC), Nitrogen Oxide Sources

#### **Summary Description**

On December 1, 2003 DEQ issued a permit to construct to the U.S. Department of Energy INTEC facility for several sources. The permit was issued to three categories of emissions units. The categories are: Fluorinel and Storage Facility (FAST); LET&D, Ventilation Air System, and Process Off-Gas System; and INEEL-Wide NO<sub>x</sub> Sources.

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# Liquid Effluent Treatment and Disposal Facility, Ventilation Air System, and Process Off-gas System

The following is a narrative description of some of the permitted emissions units at INTEC regulated in this Tier I operating permit. This description is for informational purposes only.

Three separate systems exhaust to the INTEC main stack: the LET&D system, the ventilation air system, and the process off-gas system. In addition to the pollution control systems for the main stack, individual processes have additional pollution control equipment.

The LET&D system treats the process equipment waste evaporator condensate, which is a low-level liquid waste, by an acid fractionation process. The acid portion or bottoms are stored in the tank farm. The remaining gaseous overheads are discharged to the main stack. The gaseous overheads produced in the fractionation process are processed through one of two parallel off-gas trains. These trains consist of a mist eliminator, a superheater, two banks of HEPA filters, and a blower. Liquid droplets are removed by mist eliminators and returned to the fractionators. The gas is then heated to ensure there is no liquid water in the stream. The HEPA filters remove solids. There are two HEPA filter banks, one must operate whenever a fractionator operates. Each bank consists of two filter stages in series, with each stage containing two HEPA filters. The blower discharges the effluent into the atmosphere through the main stack.

The ventilation air system is comprised of ventilation air from several buildings in the INTEC facility. The air is used to heat, ventilate, and to provide contamination control for these facilities. The air, which comprises the bulk of the flow to the main stack, passes through the VAPS system. The VAPS system consists of a fiberglass bed prefilter, HEPA filters arranged in 26 parallel banks of four filters, and three blowers. The blowers discharge the effluent into the atmosphere through the main stack.

The PAPS flow is comprised of off-gas from the dissolver off-gas, the vessel off-gas system (including the tank farm facility, process equipment waste evaporator, fuel processing facilities, and pilot plant facilities), the NWCF off-gas system (including the NWCF calcination process (currently shut down by a consent order) and the evaporator tank system (a.k.a. high-level liquid waste evaporator system), and vents from bin sets 1, 2, and 3. The PAPS system consists of mist eliminator, a superheater, and a single stage of HEPA filters. Exhaust gases are discharged into the atmosphere through the main stack.

#### **Emissions Limits**

NO<sub>x</sub> emissions shall not exceed 472 lb/hr, as determined by the in-stack continuous emission-monitoring system (CEMS), by approved U.S. EPA Reference Methods or approved alternative. Because the NWCF is the only substantial contributor of NO<sub>x</sub> emissions to the main stack, continuous emission monitoring for NO<sub>x</sub> is required only when the NWCF is operating. Annual NO<sub>x</sub> emissions shall not exceed 1700 T/yr, as determined by summing the actual hourly emissions as shown by the CEMS and the results of any other emissions estimation methods that were used.

[PTC No. P-020521, 12/1/03]

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## Monitoring Requirements

5.2.2 The permittee shall maintain and operate an in-stack CEMS (continuous emissions monitor system) for the measurement of nitrogen oxides and gas flow rate at the main stack. The CEMS is required to be operated only while the NWCF is operating. The CEMS shall meet the requirements specified in 40 CFR 60, Appendix B. The permittee will maintain documentation that describes quality assurance procedures and maintenance procedures.

[PTC No. P-020521, 12/1/03]

DOE may continue to operate the Calciner at the New Waste Calcining Facility (NWCF) until June 1, 2000. Unless, and until, DEQ has issued a hazardous waste permit for its continued operation, after June 1, 2000, the Calciner shall be in standby mode. At such time as DOE decides to operate or close the Calciner, which shall be no later than June 1, 2000, DOE shall provide written notice of its decision to DEQ and EPA. Based on this decision, DOE shall either: (a) submit a closure plan to DEQ for approval for closure of the Calciner system(s) under the requirements of IDAPA 16.01.05.009 [40 CFR Part 265, Subpart G] within 90 days of the written notice, or (b) submit a schedule to DEQ for review and approval within 30 days of the written notice for submittal of a permit application for the Calciner system(s). DOE must comply with all applicable permitting requirements of IDAPA 16.01.05.008, .012 [40 CFR Parts 264 and 270] prior to operating the Calciner. In the event that a decision is made to operate the Calciner, the Calciner shall remain in standby mode until a final permit decision is made by DEQ pursuant to the procedures of IDAPA 16.01.05.013 [40 CFR 124]. Routine repair, replacement, and maintenance of the Calciner will not be deemed operation of the Calciner. Such activities may be conducted while the Calciner is in standby mode.

[Consent Order OCC-94-035, Section 6.20.E.1, 4/19/99]

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the permit.

#### 6. WASTE REDUCTION OPERATIONS COMPLEX

## **Summary Description**

The following is a narrative description of the currently permitted emissions unit at the WROC regulated in this Tier I operating permit. This description is for informational purposes only.

PTC No. P-020521 was issued by DEQ December 1, 2003. The INTEC NO<sub>x</sub> sources PTC is an INEEL site-wide permit that sets limits for NO<sub>x</sub> emissions from specified boilers. The source identified at the WROC affected by the site-wide PTC is a Cyclotherm commercial heating boiler, PBF-620 M-31, in the Power burst Facility (PBF) reactor building PBF-620. The rated capacity is 1.6 MMBtu/hr with a pressure-atomizing burner type. Boiler PBF-620 M-31 is ignited by propane and fueled with No. 2 fuel oil. Neither emissions control equipment nor emissions monitoring equipment are installed for operation of the boiler.

In addition to the facility-wide conditions listed in Section 2 of this permit, Table 6.1 contains additional requirements that apply to the WROC.

**Table 6.1 APPLICABLE REQUIREMENTS SUMMARY** 

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
6.1	NO <sub>x</sub> emissions from boiler	0.24 average lb/hr annual avg. and 0.79 tons per any consecutive 12-month period	PTC No. 023-00001	6.2, 6.3, 6.4
6.2	Boiler Fuel Requirements	Combust only ASTM grade	IDAPA 58.01.01.322.06, 07, 5/1/1994	6.3

### Permit Limits/Standard Summary

#### **Emissions Limits**

Oxides of nitrogen emissions from the Cyclotherm boiler PBF-620 M-31 shall not exceed any corresponding emission rate limit listed in Table 6.2.

Table 6.2 OXIDES OF NITROGEN EMISSIONS FROM THE BOILER

Source Description	NO <sub>x</sub> (lb/hr) <sup>1</sup>	NO <sub>x</sub> (T/yr) <sup>2</sup>
Cyclotherm boiler PBF-620 M-31	0.24	0.79

Pounds per hour based on a monthly average

[PTC No. P-020521, 12/1/03]

# **Operating Requirements**

6.2 The permittee shall not burn ASTM grade No. 5 and 6 in the Cyclotherm boiler PER-620-023. [IDAPA58.01.01.322.01, 07, 5/1/94]

Tons per year based on any consecutive 12-month period

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## Monitoring, Recordkeeping, and Reporting Requirements

6.3 The permittee shall monitor and record the monthly and consecutive 12-month period fuel consumption and type of fuel combusted by the Cyclotherm boiler PER-620-023. A compilation of the most recent five years of records shall be kept onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/1994]

The permittee shall calculate and record the average pounds per hour per month NO<sub>x</sub> emissions and NO<sub>x</sub> emissions per consecutive 12-month period from Cyclotherm boiler PER-620-023 using appropriate EPA AP-42 or manufacturer supplied emissions factors, or a DEQ approved alternative method. A compilation of the most recent five years of records shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/1994]

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#### 7. NAVAL REACTORS FACILITY

## **Summary Description**

The following is a narrative description of the permitted emissions units at NRF regulated in this Tier I operating permit. This description is for informational purposes only.

Boiler House, NRF-620, houses three boilers and the associated support equipment used in providing heat in the form of steam for the NRF buildings. The rated capacity for each boiler is 40,000 lb/hr of steam based on continuous load. The boilers are pre-ignited with propane and burn ASTM grade number 1, 2, and 4 fuel oils alone or as a mixture based upon ASTM standards for fuel oils.

In addition to the facility-wide conditions listed in Section 2 of this permit, Table 7.1 contains additional requirements that apply to the NRF.

**Table 7.1 APPLICABLE REQUIREMENTS SUMMARY** 

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
7.1	NO <sub>X</sub> emissions from boilers	Table 7.2	PTC No. P-020521	7.2, 7.3, and 7.4
7.2	Boiler Fuel Requirements	Combust only ASTM grade number 1, 2, and 4 fuel oils in the boilers	IDAPA 58.01.01.322.06, 07, 5/1/1994	7.3

#### Permit Limits/Standard Summary

#### **Emissions Limits**

7.1 Oxides of nitrogen emissions from the boilers shall not exceed any corresponding emission rate limit listed in Table 7.2.

Table 7.2 OXIDES OF NITROGEN EMISSIONS FROM THE BOILERS

Source Description	NO <sub>x</sub> (lb/hr) <sup>1</sup>	NO <sub>x</sub> (T/yr) <sup>2</sup>
NRF Boiler No. 1	22.66	37.13
NRF Boiler No. 2	22.66	37.13
NRF Boiler No. 3	22.66	37.13

Pounds per hour based on a monthly average

[PTC No. P-020521, 12/01/03]

# **Operating Requirements**

7.2 The permittee shall not burn ASTM grade No. 5 and 6 fuel oil in NRF- Boiler No. 1, NRF Boiler No. 2, and NRF Boiler No. 3.

[IDAPA58.01.01.322.06, 07, 5/1/94]

<sup>&</sup>lt;sup>2</sup> Tons per year based on any consecutive 12-month period

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## Monitoring, Recordkeeping, and Reporting Requirements

7.3 The permittee shall monitor and record the monthly and consecutive 12-month period fuel consumption and type of fuel combusted by NRF Boiler No. 1, NRF Boiler No. 2, and NRF Boiler No. 3. A compilation of the most recent five years of records shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

7.4 The permittee shall calculate and record the average pounds per hour per month NO<sub>x</sub> emissions and NO<sub>x</sub> emissions per consecutive 12-month period from NRF Boiler No. 1, NRF Boiler No. 2, and NRF Boiler No. 3 using appropriate EPA AP-42 or manufacturer supplied emissions factors, or a DEQ approved alternative method. A compilation of the most recent five years of records shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

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## 8. TEST AREA NORTH (TAN)

### **Summary Description**

Test Area North (TAN) is in the northern part of the INEEL site and presently consists of three operational areas: the Technical Support Facility (TSF), the Specific Manufacturing Capability (SMC) facility, and the Water Reactor Research Test Facility (WRRTF). A private contractor operates each of the operational areas at TAN on behalf of DOE-ID.

The TSF area functions as the administrative and support hub of TAN and houses many important programs, including a Hot Shop and cells for remote disassembly and repair of radioactive assemblies. Assembly crafts and maintenance for TAN/TSF is centered at TSF.

The SMC is a state-of-the-art research and manufacturing complex. The SMC includes a multiphased manufacturing operation that produces fabricated metal assemblies. Radionuclide emissions from SMC are generally limited to those present in depleted uranium. Facilities that support SMC operations are located at the CTF area of TAN. The SMC project supports two major process areas: (a) TAN 629 Fabrication and Assembly; and (b) TAN 679 Rolling Operations.

It is noted that when DEQ requests classified records, the records shall be made available only to DEQ representatives with appropriate national security clearances and a need to know, in accordance with federal regulations. Table 8.1 contains a summary of the requirements that apply to TAN. Specific permit requirements are listed below the Table.

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#### Table 8.1 SUMMARY OF APPLICABLE REQUIREMENTS

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
SMC				
8.1.1	PM/PM <sub>10</sub> and VOC emissions from TAN 629-002	PM/PM <sub>10</sub> - 0.007 T/yr VOC - 0.0403 T/yr	PTC No. P-030501	8.1.2, 8.1.3
8.2.1	PM/PM <sub>10</sub> emissions from TAN 677-030	Not to exceed 0.0078 T/yr	PTC No. P-030501	8.2.2, 8.2.3
8.3.1	PM/PM <sub>10</sub> emissions from TAN 679-099	Not to exceed 0.001 T/yr	PTC No. P-030501	8.3.4, 8.3.6
8.3.2	VOC emissions from TAN 679-022, TAN 679-023, TAN 679-024	Not to exceed 0.004 T/yr	PTC No. P-030501	8,3,7, 8,3,8, 8,3,9
8.3.2	VOC emissions from TAN 679-025, TAN 679-026, TAN 679-027	Not to exceed 0.048 T/yr	PTC No. P-030501	8.3.7, 8.3.8, 8.3.9
8.3.3	Part throughput in TAN 679	Shall not process more than 54 parts per 10-hour shift for R&D or 125 part per 10-hour shift for regular operation	PTC No. P-030501	8,3.5
8.4.1	PM/PM <sub>10</sub> SO <sub>2</sub> CO NO <sub>x</sub> VOC from SMC Boilers	PM/PM <sub>10</sub> - 0.57lb/hr, 2.21 T/yr SO <sub>2</sub> - 19.83 lb/hr, 79.33 T/yr CO - 1.39 lb/hr, 5.52 T/yr NO <sub>x</sub> - 5.53 lb/hr, 22.13 T/yr VOC - 0.056 lb/hr, 0.22 T/yr	PTC No. P-030501	8.4.2
8.5.1	Refuse incinerator PM	PM emissions rate of less than 0.2 pounds of particulate per 100 pounds of refuse burned	PTC No. P-030501	8.5.2, 8.5.3, 8.5.4, 8.5.5
8.6.1	VOC emissions from TAN 629- 012 and TAN 629-014	Not to exceed 4.1 T/yr	PTC No. P-030501	8.6.2, 8.6.3
8.6.1	PM/PM <sub>10</sub> emissions from TAN 629-012 and TAN 629-014	Not to exceed 0.5 T/yr	PTC No. P-030501	8.6.4, 8.6.5
TAN 603-PB	G-76-98, Fuel Oil-Fired Boilers No	o. 4 and No. 5		
8.7.1	SO <sub>2</sub> emissions from TAN 603- 027 and TAN 603-028	Not to exceed 39.9 T/yr	PTC No. 023-00001	8.7.2, 8.7.3, 8.7.4, 8.7.5
8.7.2	Sulfur content, NSPS	0.5% by weight for fuel oil	40 CFR 60.42c(d) & (h)	8.7.5
8.7.3	Fuel oil throughput limit for TAN 603-027 and TAN 603-028	93,333 gal/mo and 1,120,000 gal/yr	PTC No. 023-00001	8.7.4
2.13	NSPS Requirements	Compliance with 40 CFR Part 60, Subpart Dc and Subpart A	40 CFR Part 60, Subparts Dc and A	2.13

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#### Permit Limits/Standard Summary

#### 8.1 SMC, TAN 629: Phase I

#### **Emissions Limits**

8.1.1 Emissions of PM, PM<sub>10</sub>, and VOC from stack TAN 629-002 shall not exceed any emission rate limit listed in the table below.

# U.S. DEPARTMENT OF ENERGY / INEEL SMC PROJECT PROCESSING EMISSION RATE LIMITS\*

INCOLO	III DINIBOLON LETTE BILLER	~
TD	PM/PM <sub>10</sub>	VOC
Emission Unit	T/yr <sup>b</sup>	T/yr <sup>b</sup>
TAN 629-002 Phase I Stack	0.007	0.0403

As determined by a pollutant specific U.S. EPA reference method, or DEQ approved alternative, or as determined by the DEQ's emission estimation methods used in this permit analysis.

[PTC No. P-030501, 5/20/04]

## Monitoring, Recordkeeping and Reporting Requirements

8.1.2 The permittee shall maintain a record of the material throughput per month and each calendar year associated with stack TAN 629-002. This record shall be maintained onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

8.1.3 On a calendar year basis, using data collected in Permit Condition 8.1.2 the permittee shall calculate and record the PM/PM<sub>10</sub> and VOC emissions per calendar year from stack TAN 629-002. The recordkeeping shall include all calculations and assumptions used in performing the calculations. The most recent five-year compilation of data shall be kept onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

# 8.2 SMC, TAN 677: Metalworking, Cutting, and Welding Operations

#### **Emissions Limits**

8.2.1 The PM and PM<sub>10</sub> emissions from stack TAN 677-030 shall not exceed any emission rate limit listed in the table below.

As determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emissions rate by the allowable hours per year that the processes may operate, or by actual annual production rates.

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# U.S. DEPARTMENT OF ENERGY / INEEL SMC Project PROCESSING EMISSION RATE LIMIT

	I ROCESSING EMISSION RATE	311411
	TO A STY 44	PM/PM <sub>10</sub>
	Emission Unit	T/yr <sup>b</sup>
TAN 677-030 P	rocess Stack - welding and cold machine shop	0.0078

As determined by a pollutant specific U.S. EPA reference method, or DEQ approved alternative, or as determined by the DEQ's emission estimation methods used in this permit analysis.

[PTC No. P-030501, 5/20/04]

# Monitoring, Recordkeeping and Reporting Requirements

8.2.2 The permittee shall maintain a record of the amount of welding material used each calendar year that is associated with stack TAN 677-030. This record shall be maintained onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

[PTC No. P-030501, 5/20/04]

8.2.3 The permittee shall calculate and record the emissions per calendar year for TAN 677-030 using the data collected in Permit Condition 8.2.2 and appropriate EPA AP-42 or manufacturer-supplied emissions factors, or a DEQ-approved alternative method. The recordkeeping shall include all calculations and assumptions used in performing the calculations. The most recent five-year compilation of data shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

# 8.3 SMC, TAN 679: Phase II (North and South Manufacturing Areas)

#### **Emissions Limits**

8.3.1 The PM and PM<sub>10</sub> emissions from stack TAN 679-099 shall not exceed any corresponding emission rate limit listed in the table below.

#### U.S. DEPARTMENT OF ENERGY / INEEL SMC Project PROCESSING EMISSION RATE LIMIT<sup>4</sup>

T	PM/PM <sub>10</sub>
Emission Unit	T/yr <sup>b</sup>
TAN 679-099: Maintenance welding shop hood	0.001

As determined by a pollutant specific U.S. EPA reference method, or DEQ approved alternative, or as determined by the DEQ's emission estimation methods used in this permit analysis.

[PTC No. P-030501, 5/20/04]

8.3.2 The VOC emissions from stacks TAN 679-022, TAN 679-023, TAN 679-024 (in north manufacturing area), TAN 679-025, TAN 679-026, and TAN 679-027 (in south manufacturing area) shall not exceed any corresponding emissions rate limit listed in the table below.

As determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emissions rate by the allowable hours per year that the processes may operate, or by actual annual production rates.

As determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emissions rate by the allowable hours per year that the processes may operate, or by actual annual production rates.

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Location:	Scoville, Idaho	023-00001, 011-00022	Date Expires:	June 28, 2010
The permit	tee is hereby allowed to operate the equi	pment described herein si	ibject to all terms	and conditions of

# U.S. DEPARTMENT OF ENERGY / INEEL SMC Project PROCESSING EMISSION RATE LIMIT

the permit.

TROCESSING EMISSION	IVA I E L'IVII I
Emission Unit	VOC
Emission Out	T/yr <sup>b</sup>
TAN 679-022, 023, 024:	0.004
Phase II – north (3 stacks)	0.004
TAN 679-025, 026, 027:	0.049
Phase II - south (3 stacks)	0.048

As determined by a pollutant specific U.S. EPA reference method, or DEQ approved alternative, or as determined by the DEQ's emission estimation methods used in this permit analysis.

[PTC No. P-030501, 5/20/04]

#### **Operating Requirements**

8.3.3 The permittee shall not process more than 54 parts per 10-hour shift for R & D production or 125 parts per 10-hour shift for regular production.

[PTC No. P-030501, 5/20/04]

#### Monitoring, Recordkeeping and Reporting Requirements

8.3.4 The permittee shall maintain a record of the amount of weld material used each calendar year at TAN 679-099 (Maintenance welding shop hood). This record shall be maintained kept onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

[PTC No. P-030501, 5/20/04]

8.3.5 At TAN 679, the permittee shall maintain a record of the number of parts processed per shift for R&D production and the number of parts processed per shift for regular production. This record shall be maintained onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

8.3.6 The permittee shall calculate and record the PM/PM<sub>10</sub> emissions each calendar year from TAN 679-099. The recordkeeping shall include all calculations and assumptions used in performing the calculations. The most recent five-year compilation of data shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

- 8.3.7 The permittee shall maintain a record of the type and amount of VOCs used per calendar year at TAN 679-022, TAN 679-023, and TAN 679-024 (Laboratory). This record shall be maintained onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

  [IDAPA 58.01.01.322.06, 07, 5/1/94]
- 8.3.8 The permittee shall maintain a record of the gallons of lube oil used per consecutive 12-month period at TAN 679-025, TAN 679-026, and TAN 679-027 (Rolling Mill). This record shall be maintained onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

As determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emissions rate by the allowable hours per year that the processes may operate, or by actual annual production rates.

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8.3.9 The permittee shall calculate and record the VOC emissions per consecutive 12-month period from TAN 679-022, TAN 679-023, TAN 679-024, TAN 679-025, TAN 679-026, and TAN 679-027 (Rolling Mill and Laboratory). The most recent five-year compilation of data shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

#### 8.4 SMC, Fuel Burning Equipment

#### **Summary Description**

The SMC Fuel Burning Equipment which includes stack TAN 679-067 for 25 MMBtu/hr and 60 hp boilers, and stack TAN 679-068 for another 25 MMBtu/hr. All boilers are fired on no. 2 fuel oil.

#### Emissions Limits

8.4.1 Combined emissions of PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOCs from the boilers shall not exceed any corresponding emissions rate limit listed in the table below.

SMC BOILER EMISSION RATE LIMITS\* - HOURLY (lb/hr) AND ANNUAL\* (T/yr)\*

Eminion Vita	PM/	PM <sub>10</sub>	S	O <sub>2</sub>	C	O	N	O <sub>x</sub>	vo	C
Emissions Units	lb/hr <sup>c</sup>	T/yr <sup>d</sup>	lb/hr <sup>c</sup>	T/yr <sup>d</sup>	Lb/hr <sup>c</sup>	T/yr <sup>d</sup>	Lb/hr°	T/yr <sup>d</sup>	lb/hr <sup>c</sup>	T/yr <sup>d</sup>
TAN 679-067 (25 MMBtu/hr and 60 hp boilers), and TAN 679-068 (25 MMBtu/hr boiler)	0.57	2.21	19.83	79.33	1.39	5.52	5.53	22.13	0.056	0.22

As determined by a pollutant-specific EPA reference method, or DEQ-approved alternative, or as determined by the DEQ's emissions estimation methods used in the PTC permit analysis.

[PTC No. P-030501, 5/20/04]

# Monitoring, Recordkeeping and Reporting Requirements

When the SMC facility is operating, the permittee shall monitor and record the daily, monthly, and consecutive 12-month period fuel consumption and type of fuel consumed by the three boilers that vent to stacks TAN 679-067 and TAN 679-068. The most recent five-year compilation of data shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

As determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emissions rate by the allowable hours per year that the process(es) may operate.

average pounds per hour based on a daily average.

tons per consecutive 12-month period.

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The permit	tee is hereby allowed to operate the equ	uipment described herein st	ubiect to all terms	and conditions of

The permittee is hereby allowed to operate the equipment described herein subject to all terms and conditions of the permit.

#### 8.5 SMC, Refuse Incinerator

#### **Emissions Limits**

8.5.1 The refuse incinerator shall be operated in accordance with IDAPA 58.01.01.786. The particulate emissions rate shall not exceed 0.2 pounds of particulate per 100 pounds of refuse burned based on an hourly average.

[PTC No. P-030501, 5/20/04; IDAPA 58.01.01.322.786, 4/5/00]

#### **Operating Requirements**

8.5.2 All personnel authorized to operate and/or maintain this incinerator shall be thoroughly trained and knowledgeable to perform their respective functions correctly as specified in the O&M documents originally provided by the permittee.

[PTC No. P-030501, 5/20/04]

### Monitoring, Recordkeeping and Reporting Requirements

8.5.3 The permittee shall maintain job training schedules and records of personnel qualification for operation of the incinerator. These records shall be maintained onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

8.5.4 The permittee shall maintain a record of the pounds of refuse burned in the incinerator per hour. These records shall be maintained onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

8.5.5 The permittee shall calculate and record the PM emissions per 100 pounds of refuse burned in the refuse incinerator, averaged hourly. The most recent five-year compilation of data shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

#### 8.6 SMC, 2B Paint Process

#### **Emissions Limits**

8.6.1 Emissions of PM, PM<sub>10</sub>, and VOC from stacks TAN 629-012 and TAN 629-014 shall not exceed any emission rate limit listed in the table below.

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# U.S. DEPARTMENT OF ENERGY / INEEL SMC Project PROCESSING EMISSION RATE LIMITS\*

I NO CESSA 10 E	HOUSE THE REAL PROPERTY	
Parinian Hais	PM/PM <sub>10</sub>	VOC
Emission Unit	T/yr <sup>b</sup>	T/yr <sup>b</sup>
TAN 629-012, 014: 2B Paint process	0.5	4.1

As determined by a pollutant specific U.S. EPA reference method, or DEQ approved alternative, or as determined by the DEO's emission estimation methods used in this permit analysis.

[PTC No. P-030501, 5/20/04]

## Monitoring, Recordkeeping and Reporting Requirements

8.6.2 The permittee shall maintain a record of the number of parts processed during the previous consecutive 12 months at the 2B Paint Process (vents to stacks TAN 629-012 and TAN 629-014).

This record shall be maintained onsite for the most recent five-year period and shall be made available to DEO representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

8.6.3 The permittee shall calculate and record the VOC emissions per consecutive 12-month period from TAN 629-012 and TAN 629-014. The most recent five-year compilation of data shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

8.6.4 The permittee shall maintain a record of the amount of material processed during the previous consecutive 12-month period at the 2B Paint Process which vents to stacks TAN 629-012 and TAN 629-014. This record shall be maintained onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

8.6.5 The permittee shall calculate and record the PM/PM<sub>10</sub> emissions per consecutive 12-month period from TAN 629-012 and TAN 629-014. The most recent five-year compilation of data shall be maintained onsite and shall be made available to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

## 8.7 TAN 603-PBG-76-98, Fuel Oil-Fired Boilers No. 4 and No. 5

#### **Emissions Limits**

8.7.1 Emissions of SO<sub>2</sub> from the No. 4 and No. 5 boiler exhaust stacks (TAN 603-027 and TAN 603-028) shall not exceed 39.9 tons per consecutive 12-month period inclusive.

[PTC No. 023-00001, 5/14/98]

## Operating Requirements

8.7.2 No distillate fuel oil containing sulfur in excess of 0.5% by weight shall be burned in Boiler No. 4 and Boiler No. 5 in accordance with 40 CFR 60.42(c) and IDAPA 58.01.01.728.

[PTC No. 023-00001, 5/14/98; IDAPA 58.01.01.728, (5/1/94); 40 CFR 60.42(c)]

As determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emissions rate by the allowable hours per year that the processes may operate, or by actual annual production rates. The permittee shall not exceed the tons per year (T/yr) listed based on any consecutive 12-month period.

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The permi	tee is hereby allowed to operate the eq	uipment described herein si the permit	ubject to all terms	and conditions of

8.7.3 No more than 93,333 gallons per month or 1,120,000 gallons per consecutive 12-month period of fuel oil shall be burned in Boiler No. 4 and Boiler No. 5.

[PTC No. 023-00001, 5/14/98]

#### Monitoring, Recordkeeping and Reporting Requirements

8.7.4 The permittee shall monitor and record the amount, in gallons, of fuel oil combusted in Boiler No. 4 and Boiler No. 5 monthly and per each consecutive 12-month period. All data shall be maintained onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

[PTC No. 023-00001, 5/14/98]

8.7.5 The permittee shall require the vendor of the fuel oil to certify that each load received has a 0.5 weight percent or less of sulfur in accordance with 40 CFR 60, Subpart Dc. All data shall be obtained and maintained, for the most recent five-year period, and made available to DEQ representatives upon request.

[PTC No. 023-00001, 5/14/98; 40 CFR 60.42c(d) and 60.42c(h)]

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## 9. TEST REACTOR AREA (TRA)

#### 9.1 TRA – Diesel Powered Generators

## **Summary Description**

The Test Reactor Area (TRA) utilizes three electrical generator units (Units 674-M-6, 670-M-42, and 670-M-43) powered by large stationary diesel engines. The primary purpose of the TRA generators is to provide electrical power to the Advanced Test Reactor (ATR) and/or TRA during normal operations, off-normal operations, and emergency operation.

#### **Emissions Limits**

9.1.1 The combined NO<sub>x</sub> emissions from the 674-M-6, 670-M-42, and 670-M-43 generator stacks shall not exceed the emissions rate limit listed in Table 9.1 in any consecutive 12-month period.

**Table 9.1 TRA GENERATORS EMISSIONS LIMIT** 

S <b>D</b> i-4i	NO <sub>X</sub>
Source Description	T/yr
Combined Emissions – TRA Generators	119.5

[ PTC No. P-000534, 5/18/04]

# **Operating Limits**

9.1.2 The permittee shall only combust Grade 1 and/or Grade 2-distillate fuel oil (diesel fuel) in the three generators.

[ PTC No. P-000534, 5/18/04]

9.1.3 The maximum annual combined throughput of fuel oil to the 674-M-6, 670-M-42, and 670-M-43 generators shall not exceed 544,522 gallons per consecutive 12-month period.

[ PTC No. P-000534, 5/18/04]

9.1.4 The sulfur content in the No. 1 fuel oil (ASTM Grade 1) supplied to the three generators shall not exceed 0.3% by weight as required in IDAPA 58.01.01.728.

The sulfur content in the No. 2 fuel oil (ASTM Grade 2) supplied to the three generators shall not exceed 0.5% by weight as required in IDAPA 58.01.01.728.

[ PTC No. P-000534, 5/18/04]

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### Monitoring, Recordkeeping, and Reporting Requirements

- 9.1.5 By May 18, 2005 the permittee shall conduct two performance tests to measure NO<sub>x</sub> emissions from the 674-M-6 stack and either the 670-M-42 or 670-M-43 stack using EPA Reference Method 7 or 7E. The results of the test will be used to verify the NO<sub>x</sub> emission factor for these units. The tests shall be conducted while the permittee is combusting ASTM Grade 2 fuel oil. This performance test, and any subsequent performance test, shall be performed in accordance with IDAPA 58.01.01.157 and the following requirements:
  - Visible emissions shall be observed during each performance test run using the methods specified in IDAPA 58.01.01.625.
  - The throughput of diesel fuel to the generator being tested shall be recorded in gallons per hour during each performance test run.

The results of the NO<sub>x</sub> testing shall be reported in pounds emitted per million British thermal units (lb/MMBtu) of fuel to compare with the NO<sub>x</sub> emission factor (3.2 lb/MMBtu) used to establish the emissions limit in Permit Condition 9.1.1.

[ PTC No. P-000534, 5/18/04]

9.1.6 For each month, the permittee shall monitor and record the aggregate throughput of fuel oil to generators 674-M-6, 670-M-42, and 670-M-43 for that month and for the most recent consecutive 12-month period. A compilation of the most recent five years of records shall be kept onsite and shall be made available to DEQ representatives upon request.

[ PTC No. P-000534, 5/18/04]

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# 10. RADIOACTIVE WASTE MANAGEMENT COMPLEX (RWMC)

# **Summary Description**

The only requirements that apply to the RWMC are in the facility-wide conditions located in Section 2 of this permit.

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The permit	tee is hereby allowed to operate the ac			7 7

The permittee is hereby allowed to operate the equipment described herein subject to all terms and conditions of the permit.

#### 11. ADVANCED MIXED WASTE TREATMENT PROJECT

#### **Summary Description**

The AMWTP is underway in response to the 1995 Settlement Agreement between the state of Idaho and the DOE. The settlement agreement directed DOE to ship the currently estimated 65,000 m<sup>3</sup> of TRU waste now located at INEEL to the WIPP or other such facility designated by DOE, by a target date of December 31, 2015, but no later than December 31, 2018. Much of this waste requires treatment before it will be accepted for disposal at the WIPP in New Mexico. DOE contracted with BNFL, Inc. to construct the AMWTP to treat the waste so it will be accepted at WIPP.

The AMWTP will treat mixed waste, TRU waste and alpha-emitting mixed low-level waste. The project includes:

- retrieving stored waste;
- characterizing the waste for storage, treatment, or disposal;
- storing the waste in preparation for treatment or pretreatment (as required);
- pretreating and/or treating the waste in the AMWTF (if necessary); and
- certifying the waste for shipment to WIPP or another waste management unit.

The overall AMWTP includes the AMWTF and the TSA-RE. The AMWTF is specific to the treatment building, along with other buildings and associated activities. The AMWTF is located at the RWMC on the southern portion of the 56-acre TSA. The waste that requires retrieval is located in the TSA-RE just west of the AMWTF. The TSA-RE encloses asphalt pads which support primarily earthen-covered stacks of retrievably mixed waste.

Table 11.1 SUMMARY OF APPLICABLE REQUIREMENTS

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
	TSA-RE	Specified Sources = 21.4 T/yr		
11.1	NO <sub>x</sub> Emissions Limits	Propane heater = 1.0 T/yr	PTC No. 023-00001	11.5, 11.6
11.2	Propane Heater	Combust propane only	PTC No. 023-00001	11.5
11.3	Propane Heater	5.44 million cubic feet per consecutive 12-month period	PTC No. 023-00001	11.5
11.7	Standby Generator Hours of Operation	500 hours per any consecutive 12 month period	PTC No. P-030542	11.9
11.8	Standby Generator Fuel usage rate	40 gallons per hour	PTC No. P-030542	11.10
11.11	AMWTF	Aggregate emissions from 3 boilers = 3.1 T/yr	PTC No. 022 00001	11.14
11.11	NO <sub>x</sub> emissions limit	Aggregate emissions from 3 botters = 3.1 1/yr	PTC No. 023-00001	11.14
11.12	Boilers and water heater	Combust propane exclusively	PTC No. 023-00001	11.14
11.13	Boilers	322,084 gallons per consecutive 12-month period	PTC No. 023-00001	11.14

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#### Permit Limits/Standard Summary-TSA-RE

#### **Emissions Limits and Operating Requirements**

The permittee shall limit NO<sub>x</sub> emissions from the diesel powered soil vacuum and from mobile equipment operating within the TSA-RE to levels not exceeding the limits established in Table 11.2. The NO<sub>x</sub> limit applies to equipment used to move soil and retrieve waste within the TSA-RE. The NO<sub>x</sub> limit does not apply to dump trucks, tugs, yard cranes, and other equipment that enters the TSA-RE to move soil, retrieve waste, or other materials from the TSA-RE to another location outside of the TSA-RE.

Table 11.2 NO, EMISSIONS LIMITS

BNFL Inc., Idaho Falls Transuranic Retrieval Enclosure - Storage Area Emission Limits <sup>a</sup> – Hourly (lb/hr) and Annual <sup>b</sup> (T/yr)	
Source Description	Nitrogen Oxides
	T/yr <sup>c</sup>
Aggregate emissions from the diesel powered soil vacuum and from mobile equipment that operates within the TSA-RE (in accordance with Permit Condition 11.1)	21.4
Propane heater	1.0

As determined by a pollutant-specific EPA reference method, a DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in this permit analysis.

Tons per year based on any consecutive 12-month period.

[PTC No. 023-00001, 1/27/03]

The permittee shall combust propane exclusively in the 2.5 MMBtu/hr indirect-fired heater at the facility.

[PTC No. 023-00001, 1/27/03]

The amount of propane combusted in the indirect-fired heater shall not exceed 5.44 million cubic feet in any consecutive 12-month period.

[PTC No. 023-00001, 1/27/03]

# Monitoring and Recordkeeping Requirements

- The permittee shall monitor and record on a monthly basis the hours of operation for each piece of equipment that operates inside the TSA-RE. The permittee shall also monitor and record the hours of operation on a monthly basis for the 360-horsepower soil vacuum. These records shall be kept onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

  [PTC No. 023-00001, 1/27/03]
- The permittee shall monitor and record the total fuel usage, in cubic feet per consecutive 12-month period, of the indirect-fired heater at the TSA-RE facility on a monthly basis. This information shall be kept onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

[PTC No. 023-00001, 1/27/03]

As determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emission rate by the allowable hours per year that the process(es) may operate, or by actual annual production rates."

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- The permittee shall calculate NO<sub>x</sub> emissions from the TSA-RE per consecutive 12-month period in the following manner.
- On a monthly basis, for each piece of equipment operated within the TSA-RE as discussed in Permit Condition 11.1, the permittee shall multiply the hours of operation recorded in accordance with Permit Condition 11.4 by the horsepower rating for the equipment.
- 11.6.2 The permittee shall multiply the total from Permit Condition 11.6.1 by the appropriate emission factor. The emissions factor to be used is 0.031 pounds NO<sub>x</sub> per horsepower-hour or a DEQ approved alternative.
- 11.6.3 The permittee shall sum the NO<sub>x</sub> emissions from the previous consecutive 12-months.
- 11.6.4 This information shall be kept onsite for the most recent five-year period and shall be made available to DEQ representatives upon request."

[PTC No. 023-00001, 1/27/03]

The maximum annual hours of operation of the standby generator shall not exceed 500 hours per any consecutive 12-month period.

[PTC No. P-030542, 12/19/03]

- The maximum hourly fuel consumption of the standby generator shall not exceed 40 gallons per hour.

  [PTC No. P-030542, 12/19/03]
- Each month, the permittee shall monitor and record the hours of operation of the standby generator for that month and for the most recent 12-month period. The most recent five years compilation of data shall be kept on site and shall be made available to DEQ representative upon request [PTC No. P-030542, 12/19/03]
- The permittee shall maintain documentation which demonstrates the standby generator does not exceed the 40 gallon per hour combustion rate limit. Documentation may consist of manufacture performance specifications.

[IDAPA58.01.01.322.06, 5/01/94]

# Permit Limits/Standard Summary-AMWTF

# **Emissions Limits and Operating Requirements**

Annual emissions of NO<sub>x</sub> from the three boilers at the AMWTF shall not exceed the limit listed in Table 11.3.

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		_		 
Tahla	11	3	EMISSIONS	IMITS

I ADIE II.J ENIISSIONS LIMI	19
BNFL Inc.	
Advanced Mixed Waste Treatment	Facility
Emissions Limits	
	Nitrogen Oxides
Source Description	T/yr <sup>b</sup>
Aggregate emissions from three boilers.	3.1

As determined by a pollutant-specific EPA reference method, a DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in this permit

Tons per year based on any consecutive 12-month period.

[PTC No. 023-00001, 6/7/02]

The permittee shall combust propane exclusively in the three 12.55 MMBtu/hr boilers and one 2.0 MMBtu/hr potable water heater at the facility.

[PTC No. 023-00001, 6/7/02]

The aggregate fuel consumption for the three boilers at the AMWTF shall not exceed 322,084 gallons per consecutive 12-month period.

[PTC No. 023-00001, 6/7/02]

## Monitoring, Recordkeeping, and Reporting Requirements

11.14 The permittee shall maintain documentation of the type of fuel burned in each boiler and the potable water heater at the AMWTF facility. The permittee shall also monitor the aggregate amount of fuel burned in the three boilers per any consecutive 12-month period. A compilation of the most recent five years of records shall be kept onsite and shall be made available to DEQ representatives upon request.

[PTC No. 023-00001, 6/7/02]

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The permit	tee is hereby allowed to operate the eq	uipment described herein si	ubject to all terms	and conditions of

the permit.

#### 12. TIER I OPERATING PERMIT GENERAL PROVISIONS

#### General Compliance

1. The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation and is grounds for enforcement action, for permit termination, revocation and reissuance, revision, or for denial of a permit renewal application.

[IDAPA 58.01.01.322.15.a, 5/1/94; 40 CFR 70.6(a)(6)(i)]

- 2. It shall not be a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the terms and conditions of this permit.

  [IDAPA 58.01.01.322.15.b, 5/1/94; 40 CFR 70.6(a)(6)(ii)]
- 3. Any permittee who fails to submit any relevant facts or has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

[IDAPA 58.01.01.315.01, 5/1/94; 40 CFR 70.5(b)]

#### Reopening

4. This permit may be revised, reopened, revoked and reissued, or terminated for cause. Cause for reopening exists under any of the circumstances listed in IDAPA 58.01.01.386. Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable in accordance with IDAPA 58.01.01.360 through 369.

[IDAPA 58.01.01.322.15.c, 5/1/94; IDAPA 58.01.01.386, 3/19/99; 40 CFR 70.7(f)(1) and (2); 40 CFR 70.6(a)(6)(iii)]

5. The filing of a request by the permittee for a permit revision, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

[IDAPA 58.01.01.322.15.d, 5/1/94; 40 CFR 70.6(a)(6)(iii)]

# **Property Rights**

6. This permit does not convey any property rights of any sort, or any exclusive privilege.

[IDAPA 58.01.01.322.15.e, 5/1/94; 40 CFR 70.6(a)(6)(iv)]

### Information Requests

7. The permittee shall furnish within a reasonable time, all information requested in writing by DEQ to determine whether cause exists for modifying, revoking and reissuing, terminating the permit, or determining compliance with the permit.

[Idaho Code §39-108; IDAPA 58.01.01.122, 5/1/94 and 322.15.f, 4/5/00; 40 CFR 70.6(a)(6)(v)]

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8. Upon request, the permittee shall furnish to DEQ copies of records required to be kept by this permit. For information claimed to be confidential, the permittee may furnish such records along with a claim of confidentiality in accordance with Idaho Code §9-342A and applicable implementing regulations including IDAPA 58.01.01.128.

[IDAPA 58.01.01.322.15.g, 5/1/94; IDAPA 58.01.01.128, 4/5/00; 40 CFR 70.6(a)(6)(v)]

### Severability

9. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

[IDAPA 58.01.01.322.15.h, 5/1/94; 40 CFR 70.6(a)(5)]

#### Changes Requiring Permit Revision or Notice

10. The permittee may not commence construction or modification of any stationary source, facility, major facility, or major modification without first obtaining all necessary permits to construct or an approval under IDAPA 58.01.01.213, or complying with IDAPA 58.01.01.220 through 223. The permittee shall comply with IDAPA 58.01.01.380 through 386 as applicable.

[IDAPA 58.01.01.200-223, 4/5/00; IDAPA 58.01.01.322.15.i, 3/19/99; IDAPA 58.01.01.380-386, 3/19/99; 40 CFR 70.4(b)(12), 14, 15, 70.7(d)(e)]

11. Changes that are not addressed or prohibited by the Tier I operating permit require a Tier I operating permit revision if such changes are subject to any requirement under title IV of the CAA, 42 USC Section 7651 through 7651c, or are modifications under title I of the CAA, 42 USC Section 7401 through 7515. Administrative amendments (IDAPA 58.01.01.381), minor permit modifications (IDAPA 58.01.01.383), and significant permit modifications (IDAPA 58.01.01.382) require a revision to the Tier I operating permit. Section 502(b)(10) charges are authorized in accordance with IDAPA 58.01.01.384. Off-permit changes and required notice are authorized in accordance with IDAPA 58.01.01.385.

[IDAPA 58.01.01.381-385, 3/19/99; IDAPA 58.01.01.209.05, 5/1/94; 40 CFR 70.4(b)(14)(15)]

#### Federal and State Enforceability

12. Unless specifically identified as a state-only provision, all terms and conditions in this permit, including any terms and conditions designed to limit a source's potential to emit, are enforceable: (i) By DEQ in accordance with state law; and (ii) By the United States or any other person in accordance with federal law.

[IDAPA 58.01.01.322.15.j, 5/1/94; 40 CFR 70.6(b)(1)(2)]

13. Provisions specifically identified as a state-only provision are enforceable only in accordance with state law. State-only provisions are those that are not required under the federal Clean Air Act, or under any of its applicable requirements or those provisions adopted by the state prior to federal approval.

[Idaho Code §39-108; IDAPA 58.01.01.322.15.k, 3/23/98]

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the permit.

### Inspection and Entry

- 14. Upon presentation of credentials, the permittee shall allow DEQ, or an authorized representative of DEQ, to do the following:
  - a. Enter upon the permittee's premises where a Tier I source is located or emissions related activity is conducted, or where records are kept under conditions of this permit.
  - b. Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit.
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - d. As authorized by the Idaho Environmental Protection and Health Act, sample or monitor at reasonable times substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.
  - e. DEQ, or its authorized representative, understands that certain INEEL areas may require personnel controls including, but not limited to, qualified escorts, security clearances, radiological training, and safety training.

[ldaho Code §39-108; IDAPA 58.01.01.322.15.1, 3/19/99; 40 CFR 70.6(c)(2)]

## New Requirements During Permit Term

15. The permittee shall comply with applicable requirements that become effective during the permit term on a timely basis.

[IDAPA 58.01.01.322.10, 4/5/00; IDAPA 58.01.01.314.10.a.ii, 5/1/94; 40 CFR 70.6(c)(3) citing 70.5(c)(8)]

#### Registration and Registration Fees

16. The owner or operator of a Tier I source shall pay annual registration fees to DEQ in accordance with IDAPA 58.01.01.387 through IDAPA 58.01.01.397.

[IDAPA 58.01.01.387, 4/2/03; 40 CFR 70.6(a)]

#### Certification

17. All documents submitted to DEQ shall be certified in accordance with IDAPA 58.01.01.123 and comply with IDAPA 58.01.01.124.

[IDAPA 58.01.01.322.15.o, 5/1/94; 40 CFR 70.6(a)(3)(iii)(A); 40 CFR 70.5(d)]

#### Renewal

18. a. The owner or operator of a Tier I source shall submit an application to DEQ for a renewal of this permit at least six months before but no earlier than 18 months before, the expiration date of this operating permit. To ensure that the term of the operating permit does not expire before the permit is renewed, the owner or operator is encouraged to submit a renewal application nine months prior to the date of expiration.

[IDAPA 58.01.01.313.03, 4/5/00; 40 CFR 70.5(a)(1)(iii)]

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b. If a timely and complete application for a Tier I operating permit renewal is submitted, but DEQ fails to issue or deny the renewal permit before the end of the term of this permit, then all the terms and conditions of this permit including any permit shield that may have been granted pursuant to IDAPA 58.01.01.325 shall remain in effect until the renewal permit has been issued or denied.

[IDAPA 58.01.01.322.15.p, 5/1/94; 40 CFR 70.7(b)]

#### Permit Shield

- 19. Compliance with the terms and conditions of the Tier I operating permit, including those applicable to all alternative operating scenarios and trading scenarios, shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:
  - a. Such applicable requirements are included and are specifically identified in the Tier I operating permit; or
    - i. DEQ has determined that other requirements specifically identified are not applicable and all of the criteria set forth in IDAPA 58.01.01.325.01(b) have been met.
  - b. The permit shield shall apply to permit revisions made in accordance with IDAPA 58.01.01.381.04 administrative amendments incorporating the terms of a permit to construct), IDAPA 58.01.01.382.04 (significant modifications), and IDAPA 58.01.01.384.03 (trading under an emissions cap).
  - c. Nothing in this permit shall alter or affect the following:
    - i. Any administrative authority or judicial remedy available to prevent or terminate emergencies or imminent and substantial dangers;
    - ii. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
    - iii. The applicable requirements of the acid rain program, consistent with 42 U.S.C. Section 7651(g)(a); and
    - iv. The ability of EPA to obtain information from a source pursuant to Section 114 of the CAA; or the ability of DEQ to obtain information from a source pursuant to Idaho Code §39-108 and IDAPA 58.01.01.122.

[Idaho Code §39-108, 112; IDAPA 58.01.01.122, 5/1/94; IDAPA 58.01.01.322.15.m, 5/1/94; IDAPA 58.01.01.325, 5/1/94; IDAPA 58.01.01.381.04, 3/19/99; IDAPA 58.01.01.382.04, 3/19/99; IDAPA 58.01.01.384.03, 3/19/99; IDAPA 58.01.01.384.03, 3/19/99; IDAPA 58.01.01.385.03, 3/19/99; 40 CFR 70.6(f)]

#### Compliance Schedule and Progress Reports

a. For each applicable requirement for which the source is not in compliance, the permittee shall comply with the compliance schedule incorporated in this permit.

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The permittee is hereby allowed to operate the equipment described herein subject to all terms and conditions of the permit.

- b. For each applicable requirement that will become effective during the term of this permit and that provides a detailed compliance schedule, the permittee shall comply with such requirements in accordance with the detailed schedule.
- c. For each applicable requirement that will become effective during the term of this permit that does not contain a more detailed schedule, the permittee shall meet such requirements on a timely basis.
- d. For each applicable requirement with which the permittee is in compliance, the permittee shall continue to comply with such requirements.

[IDAPA 58.01.01.322.10, 4/5/00; IDAPA 58.01.01.314.9, 10, 5/1/94; 40 CFR 70.6(c)(3) and (4)]

#### **Periodic Compliance Certification**

- 21. a. The permittee shall submit compliance certifications during the term of the permit for each emissions unit to DEQ and the EPA as follows:
  - b. Unless specified elsewhere in this permit compliance certifications shall be submitted for all emissions units for the period from January 1 to December 31 of each year. The compliance certifications shall be submitted no later than February 28 of each year.
  - c. The compliance certification for each emissions unit shall address all of the terms and conditions contained in the Tier I operating permit that are applicable to such emissions unit including emissions limitations, standards, and work practices;
  - d. The compliance certification shall be in an itemized form providing the following information (provided that the identification of applicable information may cross-reference the permit or previous reports as applicable):
    - i. The identification of each term or condition of the Tier I operating permit that is the basis of the certification;
    - ii. The identification of the method(s), or other means, used by the owner or operator for determining the compliance status with each term and condition during the certification period. Such methods and other means shall include, at a minimum, the methods and means required by this Tier I operating permit.
    - iii. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in paragraph 21.d.ii above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify, as possible exceptions to compliance, any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred;
    - iv. Such other facts as DEQ may require to determine the compliance status of the source.

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e. All original compliance certifications shall be submitted to DEQ and a copy of all compliance certifications shall be submitted to the EPA.

[IDAPA 58.01.01.322.11, 2/5/04T; 40 CFR 70.6(c)(5)(iil) as amended, 62 Fed. Reg. 54900, 54946 (10/22/97); 40 CFR 70.6(c)(5)(iv)]

#### False Statements

22. No person shall knowingly make any false statement representation or certification in any form, notice or report required under this permit, or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

## No Tampering

23. No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

### Semiannual Monitoring Reports

In addition to all applicable reporting requirements identified in this permit, the permittee shall submit reports of any required monitoring at least every six months. The permittee's semiannual reporting periods shall be from January 1 to June 30 and July 1 to December 31. All instances of deviations from requirements in this permit must be clearly identified in the report. The semiannual reports shall be submitted to DEQ no later than August 31 and February 28 of each year.

[IDAPA 58.01.01.322.08.c, 4/5/00; 40 CFR 70.6(a)(3)(iii)]

### Reporting Deviations and Excess Emissions

25. The permittee shall promptly report all deviations from permit requirements including upset conditions, their probable cause, and any corrective actions or preventive measures taken. For excess emissions, the report shall be made in accordance with IDAPA 58.01.01.130-136. For all other deviations, the report shall be made in accordance with IDAPA 58.01.01.322.08.c, unless otherwise specified in this permit.

[IDAPA 58.01.01.322.15.q, 3/23/98; IDAPA 58.01.01.135, 4/5/00; 40 CFR 70.6(a)(3)(iii)]

### Permit Revision Not Required

26. No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit.

[IDAPA 58.01.01.322.05.b, 4/5/00; 40 CFR 70.6(a)(8)]

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# **Emergency**

27. In accordance with IDAPA 58.01.01.332, an "Emergency" as defined in IDAPA 58.01.01.008, constitutes an affirmative defense to an action brought for noncompliance with such technology-based emissions limitation if the conditions of IDAPA 58.01.01.332.02 are met.

[IDAPA 58.01.01.332.01, 4/5/00; 40 CFR 70.6(g)]